

Session Plan

Subject Name: Linux and Shell Programming

Subject Code: 403

Name of Faculty: Mrs. Monika Sahu

Course Outcomes

Subject Name: Linux and Shell Programming

Subject Code: 403

After completion of this course the student will be able to:

CO 403.1 : Compare Linux with other operating

CO 403.2 : Operate Linux System using Commands

CO 403.3 : Use Vi editor for shell programming

CO 403.4 : Explain administration in Linux Operating System

CO 403.5 : Understand Networking Services of Linux

Unit I: Introduction

S.No	Topic Name	CO Attempted	Resources Used	Mode of Teaching	Expected Date	Actual Date	Remark
1	Linux Ideas and History Understanding Open Source	CO 403.1	Chalk and Board	Lecture Method	5/02/18		
2	Linux Origins, Distributions, Linux Principles	CO 403.1	Chalk and Board	Lecture Method	6/02/18		
3	Linux Usage and Basics Logging in to a Linux System, Switching between virtual consoles and the graphical environment,	CO 403.1	Chalk and Board	Lecture Method	7/02/18 8/02/18		
4	Elements of the X Window System, Starting the X server	CO 403.1	Chalk and Board	Lecture Method	9/02/18		
5	Changing your password, The root user, Changing identities	CO 403.1	Chalk and Board	Lecture Method	10/02/18		
6	Editing text files	CO 403.1	Chalk and Board	Lecture Method	12/02/18		
7	Revision and doubt solving class	CO 403.1	Chalk and Board	Lecture Method	13/02/18		
8	Unit test	CO 403.1	Pen and paper	Written and quiz	15/02/18		

Expected Study Hours: 09 hrs

Actual Study Hours:

Reason for Delay

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Unit II: Linux Basics and File System

S.No	Topic Name	CO Attempted	Resources Used	Mode of Teaching	Expected Date	Actual Date	Remark
1.	Running Commands and Getting Help: Running Commands, Some Simple commands, Getting Help	CO 403.2	Chalk and Board	Lecture Method	16/02/18		
2.	The whatis command, The – help Option, Reading Usage Summaries	CO 403.2	Chalk and Board	Lecture Method	17/02/18		
3.	The man command, Navigating man pages, The info command, Navigating info pages, Extended Documentation	CO 403.2	Chalk and Board	Lecture Method	19/02/18		
4.	File System: Linux File Hierarchy Concepts, Some Important Directories	CO 403.2	Chalk and Board	Lecture Method	20/02/18		
5.	Current Working Directory, File and Directory Names, Absolute and Relative Pathnames	CO 403.2	Chalk and Board	Lecture Method	21/02/18		
6.	Changing Directories, Listing Directory Contents, Copying, Moving, Renaming, Creating and Removing Files & Directories	CO 403.2	Chalk and Board	Lecture Method	22/02/18		
7.	Using Nautilus, Determining File Content	CO 403.2	Chalk and Board	Lecture Method	23/02/18		
8.	The Linux File System In-depth: Partitions and File system, I-nodes, Directories, Hard Links, Symbolic (or soft) Links,	CO 403.2	Chalk and Board	Lecture Method	24/02/18		
9.	The Seven Fundamental File types, Checking Free Space, mounting & unmounting File system ,	CO 403.2	Chalk and Board	Lecture Method	26/02/18		
10	working with etc/fstabe, Archiving Files, Compressing, Creating, Listing and Extracting File, Other Archiving Tools	CO 403.2	Chalk and Board	Lecture Method	27/02/18		
11	Revision and doubt solving class	CO 403.2	Chalk and Board	Lecture Method	28/02/18		
12	Unit test	CO 403.2	Pen and paper	Written and quiz	28/02/18		

Expected Study Hours: 12 hours

Actual Study Hours:

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Unit III: Text processing and Standard I/O

S.No	Topic Name	CO Attempted	Resources Used	Mode of Teaching	Expected Date	Actual Date	Remark
1	Text Processing Vi: Opening, Modifying, saving and exiting vi text editor, mode of vi	CO 403.3	Chalk and Board	Lecture Method	1/03/18		
2	Viewing file contents, sorting text, Eliminating Duplicate lines, Comparing files, Compressing the file.	CO 403.3	Chalk and Board	Lecture Method	3/03/18		
3	Standard I/O and Pipes : Standard Input and Output, Redirecting Output to a File, Redirecting STDOUT to a Program(Piping),	CO 403.3	Chalk and Board, Projector	Lecture Method, Presentation	5/03/18		
4	Combining Output and Errors, Redirecting to Multiple Targets (tee), Redirecting STDIN from a file, Sending Multiple Lines to STDIN.	CO 403.3	Chalk and Board	Lecture Method	6/03/18		
5	Revision	CO 403.3	-	Discussion	7/03/18		
6	Unit Test	CO 403.3	Pen and paper	Written and quiz	8/03/18		

Expected Study Hours: 06 hrs Actual Study Hours:

Reason for Delay

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Unit IV: Shell Programming and Process

S.No	Topic Name	CO Attempted	Resources Used	Mode of Teaching	Expected Date	Actual Date	Remark
1	Using and configuring the Bash Shell Introduction of Bash shell, Bash Features	CO 403.3	Chalk and Board, Computer	Lecture & Demo	9/03/18		
2	Command Line, Command Line Expansion, and Editing, gnome-terminal	CO 403.3	Chalk and Board, Computer	Lecture & Demo	10/03/18		
3	Shell Programming Scripting Basics, Creating Shell Scripts, Handling Input/ Output, Control Structures	CO 403.3	Chalk and Board	Lecture & Demo	12/03/18		
4	Conditional Execution, File and string Tests, continue and break, Using positional parameters, Scripting at the command line, Shell Script debugging	CO 403.3	Chalk and Board	Lecture & Demo	13/03/18		
5	Investigating and Managing Process Process, Listing Processes, Finding Processes, Signals Sending, Signals to Processes, Scheduling Priority	CO 403.3	Chalk and Board	Lecture & Demo	14/03/18 15/03/18		
6	Altering Scheduling Priority, Interactive Process management tools, Job Control, Scheduling a Process to execute later, Crontab File format. Different run levels	CO 403.3	Chalk and Board	Lecture & Demo	16/03/18 17/03/18		
7	Revision	CO 403.3	-	Discussion	20/03/18		
8	Unit Test	CO 403.3	Pen and paper	Written and quiz	21/03/18		

Expected Study Hours: 10 hrs

Actual Study Hours:

Reason for Delay

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Unit V: SYSTEM ADMINISTRATION

S.No	Topic Name	CO Attempted	Resources Used	Mode of Teaching	Expected Date	Actual Date	Remark
1	Common Administrative tasks	CO 403.4	Chalk and Board	Lecture Method	22/03/18		
2	Identifying administrative files – configuration and log files, Role of system administrator	CO 403.4	Chalk and Board	Lecture Method	23/03/18		
3	Managing user accounts –adding & deleting users, changing permissions and ownerships	CO 403.4	Chalk and Board	Lecture Method	24/03/18		
4	Creating and managing groups, modifying group attributes, Temporary disable user's accounts, creating and mounting file system	CO 403.4	Chalk and Board	Lecture Method	26/03/18		
5	checking and monitoring system performance, file security, password and Permissions	CO 403.4	Chalk and Board	Lecture Method	27/03/18		
6	Becoming super user using su, Getting system information – host name, disk partitions & sizes, users, kernel	CO 403.4	Chalk and Board	Lecture Method	28/03/18		
7	Backup and restore files, linuxconf. Utility in GUI, reconfiguration hardware with kudzu.	CO 403.4	Chalk and Board	Lecture Method	31/03/18		
8	Revision	CO 403.4	-	Discussion	2/04/18		
9	Unit Test	CO 403.4	Pen and paper	Written and quiz	3/04/18		

Expected Study Hours: 12 hrs

Actual Study Hours:

Reason for Delay

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Unit VI: NETWORKING SERVICES ON LINUX

S.No	Topic Name	CO Attempted	Resources Used	Mode of Teaching	Expected Date	Actual Date	Remark
1	Server –side setup, configuration, and basic administration of common networking services:	CO 403.5	Chalk and Board	Lecture Method	4/04/18		
2	Samba	CO 403.5	Chalk and Board	Lecture Method	5/04/18		
3	DNS, NIS	CO 403.5	Chalk and Board	Lecture Method	6/04/18 7/04/18		
4	Apache, SMB, DHCP	CO 403.5	Chalk and Board	Lecture Method	9/04/18 10/04/18 11/04/18		
5	Sendmail, FTP	CO 403.5	Chalk and Board	Lecture Method	12/04/18 13/04/18		
6	Other common services: tftp, pppd, proxy	CO 403.5	Chalk and Board, Projector	Lecture Method, Presentation	16/04/18 17/04/18 19/04/18		
7	Revision	CO 403.5	-	Discussion	20/04/18		
8	Unit Test	CO 403.5	Pen and paper	Written and quiz	21/04/18		

Expected Study Hours:08 Hrs

Actual Study Hours:

Reason for Delay

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