



LESSON PLAN

Program Name	Computer Engineering
Subject Name	Linux Operating System
Subject Code	CO-17601
Semester	6 th
Subject Teacher Name	Er. Suneel Kumar

Evaluation Scheme

Sr. No.	Subject Name	Study scheme (Hrs/Week)		Marks in Evaluation Scheme					
				Internal Assessment			External Assessment		
		Th	Pr	Th	Pr	Total	Th	Pr	Total
1.	Linux Operating System	4	4	30	20	50	100	50	150
Reference Books		(i) Linux: The Complete Reference 6th Edition by Richard Petersen.							
		(ii) The official Ubuntu book by Benjamin Mako.							

Course Outcomes (COs)

CO - 1	Understand the concept of Open Source Software.
CO - 2	Manage files and perform Linux administration.
CO - 3	Write shell scripts to solve different problems

Teaching Plan

Unit No.	Name of Topic	Proposed Date	Actual Date	Remarks
1	Orientation about this course.	29/01/24		
	Open Source Software (OSS), OSS advantages	31/01/24		
	Free software, freeware, free and open source software (FOSS)	02/02/24		
	Public domain software, FSF, GPL, LGPL.	03/02/24		
2	Brief history & features of Linux	05/02/24		
	Applications of Linux	07/02/24		
	Linux distributions	09/02/24		
	Kernel, Desktop environments : GNOME	12/02/24		
	Desktop environments: KDE	14/02/24		
	Architecture	16/02/24		
	Boot loaders, bash shell	17/02/24		
3	Chapter Revision	19/02/24		
	Rules for naming files and directories	21/02/24		
	FHS, file types, file permissions	23/02/24		
	Linux file management Commands: cat, touch, head, tail, cp, rm, mv, more, less	26/02/24		

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	Linux file management Commands: pwd, mkdir, rmdir, ls, cd, chmod	28/02/24		
	Use of wild card characters	01/03/24		
	Standard input, output and error files	02/03/24		
	Pipes and filters	04/03/24		
	Chapter Revision	06/03/24		
4	Networking terminology (basic concept only) : TCP/IP	08/03/24		
	IPv4 and IPv6 addresses	11/03/24		
	Netmask, gateway, DNS	13/03/24		
	DHCP, ports	15/03/24		
	Linux networking commands : ifconfig, finger, ping, arp, netstat.	16/03/24		
	Linux networking commands : host, traceroute, nmap, ssh, telnet, ftp	18/03/24		
	User management : users, groups, primary and secondary groups	20/03/24		
	User management : users, groups, primary and secondary groups	22/03/24		
	Linux commands for user management : useradd, usermod, userdel, passwd, groupadd, groupmod, groupdel	23/03/24		
	groups, chown, chgrp; Disk management : manage diskpartitions, format partitions	27/03/24		
	Mount and unmount file systems; package management	30/03/24		
	Configuration files: hosts, fstab, passwd, group, resolv.conf	01/04/24		
	Linux Servers : Telnet server, SSH server	03/04/24		
	FTP server, NFS server	05/04/24		
	proxy server, DHCP server	06/04/24		
	SAMBA	08/04/24		
	Chapter Revision	12/04/24		
6	Linux shells, bash shell script, echo, read	19-20/04/24		
	variables naming rules, read only variable	22/04/24		
	Unset variables, special variables (\$*, \$\$, \$#, \$?, \$n), environment variables	24/04/24		
	Positional parameters, command substitution	26-27/04/24		
	flowcontrol constructs -"if..then..fi" construct	29/04/24		
	"else" construct, "elif" construct,	01/05/24		
	case, while construct	03-04/05/24		
	Until and for	06/05/24		

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break and continue.	08/05/24		
Revision	20-25/05/24		

Assignments

Assignment No	Contents of Syllabus Covered	Proposed Date	Actual Date	Remarks
A-1	Unit-1, Unit-2 and Unit-3	11/03/2024		
A-2	Unit-4, Unit-5 and Unit-6	08/05/2024		

House Test/Class Test

Name of test	Syllabus for Tests	Proposed Date	Actual Date	Remarks
Class Test -1	Unit-1, Unit-2 and Unit-3	3 rd Week of March		
Class Test -2	Unit-4 and Unit-5	3 rd Week of April		
House Test - 1	Unit-1, Unit-2, Unit-3, Unit-4 and Unit-5	3 rd Week of May		

Lab Plan

Sr. No.	Name of Practical	Proposed Date		Actual Date		Remarks
		G1	G2	G1	G2	
1	To install Linux operating system (e.g. Ubuntu Distribution).	30/01/24 22/02/24	31/01/24 26/02/24			
2	Using basic Linux commands/utilities : man, echo, exit, cal, date, time, mkdir, rmdir, cd, pwd, clear, cat, type, bc, expr, test, script, passwd, uname, , hostname, alias, ls, cp, ln, rm, more, less, cmp, comm, diff, kill, sudo, su, sort.	27/02/24 12/03/24	28/02/24 14/03/24			
3	Using filter Linux commands : wc, cut, head, tail, tee, cat and grep.	14/03/24 21/03/24	16/03/24 23/03/24			
4	Using networking based Linux commands : finger, ifconfig, ping, arp, netstat, route, traceroute.	26/03/24 02/04/24	27/03/24 03/04/24			
5	Using file management commands : chmod, chown, chgrp, touch, find, cut.	04/04/24 09/04/24	06/04/24 10/04/24			
6	To study various features of any Linux desktop environment.	16/04/24	20/04/24			
7	To view and change file access permission of files in Linux.	18/04/24	24/04/24			
8	To implement various types of redirections.	23/04/24	27/04/24			
9	To write shell scripts that implements the various condition and loop constructs e.g. (a) To print the grade of marks obtained in a	30/04/24	01/05/24			

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	(b) To find factorial of any number using for and while loops.	02/05/24	04/05/24		
	(c) To check whether the number is prime or not.	07/05/24	08/05/24		
	(d) To generate fibonacci series.	09/05/24	15/05/24		
	(e) To reverse of digits of a number.	14/05/24	15/05/24		
	(f) To check whether a file exist or not, if yes then show the contents of the file.	16/05/24	18/05/24		
10	To create and delete users in Linux operating system.	21/05/24	22/05/24		

Anand
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(Signature of Teacher)

[Signature]
24/01/2024

(Signature of HOD)

Approved

[Signature]
Principal 24/1/24

Govt. Polytechnic for Women Rehan