

19BI201 UNIX PROGRAMMING

Hours Per Week :

L	T	P	C
3	-	-	3

Total Hours :

L	T	P	WA/RA	SSH/HSH	CS	SA	S	BS
45	-	-	20	45	-	10	-	5

COURSE DESCRIPTION AND OBJECTIVES:

Student explore Unix/Linux operating system utilities like file processing, process management, disk management, networking and ability to write the shell program for specific task.

COURSE OUTCOMES:

Upon completion of the course, the student will be able to achieve the following outcomes:

COs	Course Outcomes	POs
1	Apply knowledge for installing several Linux distributions on direct hardware setup and virtual hardware setup.	1
2	Develop managing files and directives.	2
3	Understand process attributes and basic level of process management.	1
4	Demonstrate writing shell script for given operating system task.	3

SKILLS:

- ✓ *File and process manipulation.*
- ✓ *Design and develop shell script programs.*



<https://www.marketwatch.com/story/stop-blaming-computer-programs>

UNIT - I**L-9**

INTRODUCTION: Introducing the Unix and Linux operating system; A brief history of Unix, Linux and Unix, Installing Linux, Introducing Unix/Linux shells, Logging into Unix/Linux; Basic commands - date, cal, who, clear, man, whatis.

UNIT - II**L-9**

UNIX FILE SYSTEM: Understanding Unix/Linux file system; Exploring the root hierarchy, Using paths, Pathnames and prompts, pwd, Navigating the file system, cd, ls, mkdir, cp, rm, chmod, Usage of vi editor.

UNIT - III**L-9**

UNIX FILE PROCESSING: Unix/Linux file Processing - input/output redirection, manipulating files - cat, touch, mv, find, paste, cut, sort, join; Advanced file processing; Selection commands - pipe, comm, diff, head, tail, wc, uniq, grep, sed.

UNIT - IV**L-9**

SHELL SCRIPT PROGRAMMING: Introduction to shell script programming; The program development lifecycle - variables, shell operators, redirection operators, more about wild card characters, shell logic structure, sequential logic, decision logic.

UNIT - V**L-9**

LOOPING LOGOCS: Shell script looping logic, The while loop, Case logic, Using shell functions; Exploring the Unix/Linux utilities - df, du, finger, ps, uname, ifconfig, ping, netstar; Installing application and packages in Linux.

TEXT BOOK:

1. Michael Palmer, "Guide to Unix using Linux", Cengage Learning, 4th edition, 2008.

REFERENCE BOOKS:

1. Sumitabha Das, "Unix Concepts And Applications", 4th edition. TMH, 2006.
2. Behrouz A. Forouzan, Richard F. Gilbery, "Unix and shell Programming", 1st edition, Cengage Learning India, 2003.