

21AID13	UNIX AND SHELL PROGRAMMING	L	T	P	C
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Course Objectives					
<ul style="list-style-type: none"> To provide introduction to UNIX Operating System and its File System To gain an understanding of important aspects related to the SHELL and the process To develop the ability to formulate regular expressions and use them for pattern matching. To provide a comprehensive introduction to SHELL programming, services and utilities 					
UNIT I	INTRODUCTION TO UNIX	9 HOURS			
Introduction to Unix-Brief History-What is Unix-Unix Components-Using Unix-Commands in Unix-Some Basic Commands-Command Substitution-Giving Multiple Commands.					
UNIT II	UNIX FILE SYSTEM	9 HOURS			
The File system –The Basics of Files-What’s in a File-Directories and File Names-Permissions-INodes-The Directory Hierarchy, File Attributes and Permissions-The File Command knowing the File Type-The Chmod Command Changing File Permissions-The Chown Command Changing the Owner of a File-The Chgrp Command Changing the Group of a File.					
UNIT III	SHELL COMMANDS	9 HOURS			
Using the Shell-Command Line Structure-Met characters-Creating New Commands-Command Arguments and Parameters-Program Output as Arguments-Shell Variables- -More on I/O Redirection-Looping in Shell Programs. Filters-The Grep Family-Other Filters-The Stream Editor Sed-The AWK Pattern Scanning and processing Language-Good Files and Good Filters.					
UNIT IV	SHELL PROGRAMMING	9 HOURS			
Shell Programming-Shell Variables-The Export Command-The Profile File a Script Run During Starting-The First Shell Script-The read Command-Positional parameters-The \$? Variable knowing the exit Status-More about the Set Command-The Exit Command-Branching Control Structures-Loop Control Structures-The Continue and Break Statement-The Expr Command: Performing Integer Arithmetic-Real Arithmetic in Shell Programs-The here Document(<<)-The Sleep Command- Debugging Scripts-The Script Command-The Eval Command-The Exec Command					
UNIT V	PROCESS OF SHELL PROGRAMMING	9 HOURS			
The Process-The Meaning-Parent and Child Processes-Types of Processes-More about Foreground and Background processes-Internal and External Commands-Process Creation-The Trap Command-The Stty Command-The Kill Command-Job Control.					
UNIT VI	CASE STUDY				
Case Study on Commands					
TOTAL PERIODS: 45					
Course Outcomes:					
<ul style="list-style-type: none"> Describe the architecture and features of the UNIX Operating System and distinguish it from other Operating Systems Demonstrate UNIX commands for file handling and process control Write Regular expressions for pattern matching and apply them to various filters for a specific task 					

- Analyze a given problem and apply requisite facets of SHELL programming in order to devise a SHELL script to solve the problem

Textbooks:

1. The Unix programming Environment by Brian W. Kernighan & Rob Pike, Pearson.
2. Introduction to Unix Shell Programming by M.G.Venkateshmurthy, Pearson.

Reference Books:

1. Unix and shell programming by B.M. Harwani, OXFORD university press.