C.U.SHAH UNIVERSITY – WADHWANCITY

FACULTY OF TECHNOLOGY AND ENGINEERING
DEPARTMENT OF INFORMATION TECHNOLOGY
B. TECH. SEMESTER: - IV

SUBJECT NAME: - Fundamental of UNIX(FOU)   **SUBJECT CODE: - 4TE04FOU1**

Teaching & Evaluation Scheme:-

Subject Code	Subject Name	Teaching Scheme (Hours)				Credits	Evaluation Scheme							Total
							Theory				Practical (Marks)			
		Th	Tu	Pr	Total		Sessional Exam		University Exam		Internal		University	
							Marks	Hours	Marks	Hours	Pr/Viva	TW	Pr	
4TE04FOU1	Fundamental of UNIX	3	0	2	5	4	30	1.5	70	3.0	30	20	-	**150**

Objectives:

• To provide basic concepts of Unix Operating System with basic commands, different utility tools.

Prerequisites:

• This course requires an understanding of operating systems and basic knowledge of a programming language.

Course outline:

Sr. No.	Course Contents	Total Hours
1	**Introduction:** The Operating system, The Unix Operating System, Linux and GNU, The Unix Architecture, Features of UNIX, POSIX and the single UNIX specification, Locating Commands, Internal and External Commands, Command Structure, Flexibility of Command usage, Man Browsing the Manual pages	05
2	**General Purpose Utilities:** The calendar, Displaying the System Date, Displaying a Message, Printf, Echo, Script, Email Basics, Changing your Password, Users Detail, Terminal and its characteristics	06
3	**The File System:** The File, What's in a File Name, Parent-Child Relationship, The HOME variable, Checking/Changing current directory, Making/Removing Directories, Absolute/Relative Pathnames, Listing Directory Contents, The UNIX File System	06
4	**Handling Ordinary Files and Basic File Attributes:** Displaying and Creating Files, Copying File, Deleting Files, Renaming Files, Paging Output, Printing a File, File Types, Counting Lines, Words and Character, Make	10

	Common and Comparing Two files, Compressing and Decompressing Files, File Archiving, Compressing and archiving together, File Ownership/Permissions, Directory Ownership	
5	**The Editor and Shell:** Input Mode, Save, Navigation, Editing Text, Undo, Repeat, Search, Substitute, Pattern matching, Redirection, Pipes, Tree	06
6	**The Process:** Basics, Process Status, System Process, Process Creation, Internal and External Commands, Process State and Zombie, Background and foreground jobs, nice, Kill, Job Control, Running job Periodically, Timing Process	08

Learning Outcomes:
1. Students are able to operate UNIX/LINUX Operating System.
2. Well familiar with different Utility Tools of UNIX/ LINUX.

Books Recommended:
1. UNIX Concepts and Applications by **Sumitabha Das**, Tata McGraw Hill, 4TH Edition, 2006.
2. A Beginner S Guide To Unix By Gopalan & Sivaselvan, Sivaselvan B., gopalan N. P., PHI Learning, 2009.
3. Unix in Easy steps by **Mohammed Azam,** New Age International Limited, 1993.