



## **Sub Committee for Curriculum Development**

**Course Name: Introduction to Operating System**

**(UG/PG): UG**

**Number of Credits: 2**

**Level: 1**

**Learning Objective(s):**

- Introduce students with the basics of operating systems with basic commands of Linux.
- Understand Operating Systems as service provider to the end user.

**Pedagogy:**

- Lectures
- Class Discussion
- Lab Session

**Pre-requisites:**

- 1) Understanding of computer fundamentals.

**Course Outline:**

<b>Sr. No.</b>	<b>Topics</b>	<b>Hrs</b>
1	Introduction to Operating System Types of operating systems: Batch:- batch processing, applications of batch processing , Interactive, Time sharing, Real time , Parallel , Distributed and Clustered. Real life applications for each type of O.S.	3
2	Operating Systems concepts :- Operating System Architectures, BIOS, Booting procedure, Multiprocessing, Multitasking, processes, example of multitasking, multiprocessing O.S. Thread:- Thread creation, threading applications	4
3	OS as Service provider:- Application execution service:- process execution, loading,	5

	linking, DLL, process communication. I/O services:- disk access , printer spooling, racing, Device Driver, external devices. File Services:- file accessing, file sharing.	
4	O.S. Kernel Basics:- introduction to kernel, user mode, kernel mode.	2
5	Introduction to Linux:- Linux kernel basic, basics of Linux shell	3
6	Basic Linux commands :- Date, time,man,pwd,cd, mkdir, cat, ls, rmdir,cp, mv, mount, unmount,lpr, histoty, chmod, who, passwd, kill, tar, zip,wc, sort, grep use of pipe.	13
	Total	30

**Book Recommended:**

1. Operating Systems Concepts by Silberschatz and Galvin
2. Andrew S. Tanenbaum, Modern Operating Systems
3. UNIX AND SHELL PROGRAMMING By NAGPAL,NAMRATA LUCKNOW / WORD-PRESS / 2009
4. INTRODUCING UNIX AND LINUX By JOY,MIKE / JARVIS,STEPHEN / LUCK,MICHAEL NEW YORK(USA) / PALGRAVE MACMILLAN / 2007

**Suggested Evaluation Methods:**

- On line Exams
- Lab exam

**Parallel/Similar courses the existing curriculum:**

S.No.	Name of the course	Institute where it was offered

Name of Member					
Designation					
Org. / Inst.	SICSR				
Signature					

Name of the Expert:

Signature:

Date: