



## 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:

Understanding of computer fundamentals.

### Course Outline:

Sr. No.	Topics	Hours
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, linking, DLL, process communication. I/O services: disk access, printer spooling, racing, Device Driver, external devices. File Services:- file accessing, file sharing.	5

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
	<b>Total</b>	<b>30</b>

**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: