

Birla Institute of Technology and Science, Pilani
Instruction Division
First Semester 2015-16
Course Handouts (Part II)

Date: 01.08.16

In addition to part I (General Handout for all courses appended to the time table) this portion gives further specific details regarding the course.

Course No. : CS F372

Course Title : Operating Systems

Instructor-in-charge : J P Misra

Avinash Gautam , Asma Rani

1. Scope and objective of the course:

- a. To provide understanding of the functions of operating systems
- b. To provide insight into functional modules of operating systems
- c. To study the concepts underlying the design and implementation of OS

2. Text Books:

1. Silverschatz, A and Galvin, P.B. “Operating System Concepts” 8th /9th edition, Addison Wesley, 2005

Reference Books

1. Stallings W, “operating Systems “, 4th edition, PHI, 2001

3. Course plan

Lecture Number	Topic(s)	Section(s) of the Text Book
1.	Introduction to OS	1.1 to 1.3
2-3	OS architecture and its components	1.4 to 1.9
4	Special purpose systems	1.10 to 1.12
5-6	System structures	Ch 2
7-9	Process Concept, scheduling, operations on processes, IPC	Ch 3
10-14	Process scheduling algorithms	Ch 5
15-16	Process Synchronization, Critical section problem	6.1 to 6.3
17-19	Semaphores, Monitors, Synchronization Hardware	6.4 to 6.9
20-21	Deadlock concept, Characterization	7.1 to 7.3
22-24	Deadlock detection, Prevention, Avoidance	7.4 to 7.6
25	Recovery from deadlocks	7.7
26-27	Memory management, Allocation	8.1 to 8.3
28-30	Concept of segmentation & H/W support in Intel Processors	8.6 (Class Notes)
31-33	Concept of Paging & H/W support in Intel Processors	8.4 to 8.5
34	Virtual Memory management	9.1 to 9.3
35-36	Page replacement algorithms	9.4
37	Frame allocation and Thrashing	9.5 to 9.6

38-39	Secondary storage structure& Management	Ch 12
40-42	File systems	Ch 10

4. Evaluation Scheme:

Components	Duration	Weightage	Date & Time	Venue	Remarks
Mid Sem test	90 mts	35%		TBA	Close Book
Assignment/take home/online *		20%			Open Book
Comprehensive	3 Hrs	45%	03/12 FN	TBA	Close Book

* To be announced in the class.

5. Make-Up: May be given on prior permission and to only genuine cases.

6. Chamber Consultation Hour: Thursday 4 to 5PM

7. Notice: Notices concerning this course will be displayed on IPC Notice Board only.

**Instructor-in -charge
CS F372**