

Bhoj Reddy Engineering College for Women: Hyderabad
 Department of Computer Science and Engineering
 Lesson plan of faculty member for the academic year 2016–17

Class: III B Tech
 Subject: Operating Systems

Branch-Section: CSE-B

Semester: I
 Lectures per week: 4+1 (Tutorial)

Lecture Number	Topics to be covered	Date (s)
UNIT-I Operating System introduction		
1	Introduction to Computer System & Operating System	13 June 2016
2	Computer Systems-Memory Hierarchy, Interrupts	14 June 2016
3	Computer Systems-Mainframe, Desktop & Real-Time Systems	16 June 2016
4	Operating System Components	18 June 2016
5	Tutorial(G2,G1,G3) – Basic Features of OS	13, 14, 15 June 2016
6	OS Services	20 June 2016
7	System calls, OS Structure	21 June 2016
8	Operating Systems Generation	23 June 2016
9	Revision	25 June 2016
10	Tutorial(G2,G1,G3) – OS Objectives & Functions	20, 21, 22 June 2016
UNIT-II Process and CPU Scheduling		
11	Process concept and Process Scheduling	27 June 2016
12	Threads, Scheduling Criteria, Scheduling Algorithms	28 June 2016
13	Scheduling Algorithms and their Evaluation	30 June 2016
14	Tutorial (G2,G1,G3) – Process Scheduling Algorithms	2 July 2016
15	Case Study on Linux, Windows Operating System	27, 28, 29 June 2016
16	Process coordination	4 July 2016
17	Process Synchronization, Critical Section Problem	5 July 2016
18	Peterson's Solution	9 July 2016
19	Tutorial (G2,G1) – Process Synchronization	7, 5 July 2016
20	Hardware Synchronization	11 July 2016
21	Semaphores, Classic problems of synchronization	12 July 2016
22	Monitors	14 July 2016
23	Synchronization Examples	16 July 2016
24	Tutorial (G2,G1,G3)- Classic problems of synchronization	11, 12, 13 July 2016
UNIT-III Memory Management		
25	Introduction to Memory Management	18 July 2016
26	Swapping & Contiguous Memory Allocation	19 July 2016
27	Paging and Structure of the page table	21 July 2016
28	Segmentation	23 July 2016
29	Tutorial (G2,G1,G3) – Memory Management Schemes	18, 19, 20 July 2016
30	Segmentation with paging	25 July 2016
31	Virtual Memory	26 July 2016
32	Demand Paging	28 July 2016
33	Comparison of Paging, Segmentation, Paged Segmentation	30 July 2016
34	Tutorial (G2,G1,G3) – Paging & Segmentation	25, 26, 27 July 2016
35	Page Replacement Algorithms	2 August 2016
36	Thrashing, Allocation of frames	4 August 2016
37	Examples on page replacement algorithms	6 August 2016
38	Tutorial (G1,G3) – Page Replacement Policies	2, 3 August 2016

UNIT-IV File System Interface and Mass Storage Structure		
39	File System Interface, Access Methods	16 August 2016
40	Directory Structure, File System Mounting	18 August 2016
41	File Sharing & Protection, File System Structure	20 August 2016
42	Tutorial(G1,G3) – File System& Access Methods	16, 17 August 2016
43	File System implementation	22 August 2016
44	Directory Implementation	23 August 2016
45	Allocation Methods, Efficiency and Performance	27 August 2016
46	Tutorial (G2,G1,G3) – Directory Structures	22, 23, 24 August 2016
47	Mass Storage Structure Overview	29 August 2016
48	Disk Structure	30 August 2016
49	Disk Attachment	1 September 2016
50	Disk Scheduling Algorithms	3 September 2016
51	Tutorial(G2,G1,G3) – Disk Scheduling Algorithms	29, 30, 31 August 2016
52	Disk Management	6 September 2016
53	Swap space management, RAID Structures	8 September 2016
54	Disk protection	10 September 2016
55	Tutorial (G1,G3) – RAID Structures	6, 7 September 2016
UNIT-V Deadlocks and Protection		
56	Principles of deadlocks, System Model	13 September 2016
57	Deadlock Characterization, Deadlock Prevention	15 September 2016
58	Deadlock Detection and Avoidance	17 September 2016
59	Tutorial(G1,G3) – Deadlocks	13, 14 September 2016
60	Recovery from Deadlocks	19 September 2016
61	Protection Goal, Principles of Protection	20 September 2016
62	Domain of Protection	22 September 2016
63	Access Matrix Implementation	24 September 2016
64	Tutorial(G2,G1,G3) – Principles of Protection	19, 20, 21 September 2016
65	Access Control	26 September 2016
66	Revocation of Access Rights	27 September 2016
67	Capability based Systems	29 September 2016
68	Language based Protection	1 October 2016
69	Tutorial(G2,G1,G3) – Capability based Systems	26, 27, 28 September 2016
70	Revision with old Question Papers	3 October 2016
71	Revision with old Question Papers	4 October 2016
72	Tutorial(G2,G1) – Revision with old question papers	3, 4 October 2016
73	Revision with old Question Papers	27 October 2016
74	Revision with old Question Papers	29 October 2016
75	Revision with old Question Papers	31 October 2016
76	Revision with old Question Papers	1 November 2016
77	Revision with old Question Papers	3 November 2016
78	Tutorial(G2,G1,G3) - Revision with old question papers	31 October, 1, 2 November 2016

Text books:

1. Operating System Principles, Abraham Silberchatz, Peter B. Galvin, Greg Gagne 8th Edition, Wiley Student Edition.
2. Operating systems - Internals and Design Principles, W. Stallings, 6th Edition, Pearson Education.

Name and signature of the faculty: N Satyanandam ----

Name and signature of Head of the Department: Mrs. K Usha Rani ----