



SANTHIRAM ENGINEERING COLLEGE: NANDYAL

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Name of the course	Teaching Methods																											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Computer Organization (15A05402)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	✓	x	x	x	x	x	x	x	x	x	x	x
Antenna & Wave Propagation(15A04501)	✓	x	x	✓	x	✓	✓	x	x	✓	x	x	✓	x	x	x	✓	x	x	x	✓	x	✓	x	✓	x	✓	✓
Linear Integrated Circuits & Applications (15A04503)	x	x	✓	x	x	x	x	x	x	x	x	x	x	x	x	x	✓	x	x	x	x	x	x	x	✓	x	x	✓
Digital Communication System(15A04502)	x	✓	✓	x	x	x	✓	x	x	✓	x	x	✓	x	x	x	✓	x	x	x	✓	x	✓	x	x	x	x	x
Mems & Micro Systems (15A04506)	✓	x	x	✓	x	✓	x	x	x	✓	x	x	✓	x	x	x	✓	x	✓	x	✓	✓	✓	x	✓	x	x	x
Digital System Design (15A04504)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	✓	x	x	x	x	x	x	x	x	x	x	x
Social Values & Ethics (15A99501)	x	✓	x	x	x	✓	x	x	x	x	x	x	x	x	x	x	✓	✓	x	x	x	✓	x	x	x	x	x	x
IC Applications Laboratory (15A04507)	x	✓	x	x	✓	x	x	x	x	x	x	x	x	x	x	x	✓	✓	x	x	x	x	x	x	x	x	✓	x
Digital Communication Systems Laboratory (15A04508)	x	✓	x	x	x	x	x	x	x	x	x	x	x	x	x	x	✓	✓	x	x	x	x	x	x	x	x	x	x

S.No	Teaching Method	S.No	Teaching Method	S.No	Teaching Method	S.No	Teaching Method
1	Industrial Interaction	8	Language Lab	15	Public Talks	22	Case Studies
2	Demonstration	9	Group discussions	16	Google classroom	23	Research Projects
3	Internships	10	Training Programs	17	PPT	24	Worksheet
4	Workshops	11	Activity based learning	18	Viva	25	Project based learning
5	Simulation	12	Symposiums	19	MOOC's	26	Prototype Model
6	Seminars	13	Guest Lectures	20	Hackathons	27	Virtual Labs
7	Riviews	14	Flipped classrooms	21	Video lecturers	28	Poster Presentation


 HECE



SANTHIRAM ENGINEERING COLLEGE: NANDYAL

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Name of the course	Teaching Methods																											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Operating Systems (15A05501)	x	✓	x	x	x	✓	x	x	✓	x	x	x	x	x	x	✓	✓	x	x	✓	x	x	x	x	x	x	x	x
Computer Networks (15A05502)	x	✓	x	✓	x	✓	✓	x	✓	x	x	x	x	x	✓	✓	✓	x	x	✓	x	✓	x	x	x	x	x	x
Object Oriented Analysis and Design(15A05503)	x	✓	x	x	x	✓	x	x	✓	x	x	x	x	x	x	✓	✓	x	x	✓	x	x	x	x	x	x	x	x
Principles of Programming Languages (15A05504)	x	✓	x	x	x	✓	✓	x	✓	x	x	x	x	x	✓	✓	✓	x		✓	x	x	x	x	x	x	x	x
Software Testing (15A05505)	✓	✓	✓	✓	x	✓	x	x	✓	x	✓	x	x	x	✓	✓	✓	x	✓	✓	x	x	x	x	x	x	x	x
R programming (15A05505)	✓	✓	✓	✓	x	✓	✓	x	✓	x	✓	x	x	x		✓	✓	x	✓	✓	x	✓	x	x	x	x	x	x
OOAD & Software Testing Laboratory (15A05509)	x	✓	x	x	x	x	x	x	x	x	x	x	x	x	x	✓	✓	x	x	✓	x	x	x	x	x	x	x	x
Operating Systems Laboratory (15A05510)	x	✓	x	x	x	x	x	x	x	x	x	x	x	x	x	✓	✓	x	x	✓	x	x	x	x	x	x	x	x
Social Values & Ethics (15A99501)	x	✓	x	x	x	✓	x	x	x	x	x	✓	x	x	x	✓	✓	x	x	✓	x	x	x	x	x	x	x	x

S.No	Teaching Method	S.No	Teaching Method	S.No	Teaching Method	S.No	Teaching Method
1	Industrial Interaction	8	Language Lab	15	Public Talks	22	Case Studies
2	Demonstration	9	Group discussions	16	Google classroom	23	Research Projects
3	Internships	10	Training Programs	17	PPT	24	Worksheet
4	Workshops	11	Activity based learning	18	Viva	25	Project based learning
5	Simulation	12	Symposiums	19	MOOC's	26	Prototype Model
6	Seminars	13	Guest Lectures	20	Hackathons	27	Virtual Labs
7	Reviews	14	Flipped classrooms	21	Video lecturers	28	Poster Presentation


 HCSE



SANTHIRAM ENGINEERING COLLEGE: NANDYAL

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Name of the course	Teaching Methods																											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Electrical Measurements (15A02501)	✓	✓	×	×	X	✓	×	×	×	×	✓	×	×	×	×	×	✓	✓	×	×	✓	×	✓	×	×	×	×	×
Linear & Digital Ic Applications(15A04509)	×	×	×	×	X	✓	×	×	×	×	×	×	×	×	×	×	✓	✓	×	×	✓	×	×	×	×	×	×	×
Electrical Power Transmission Systems(15A02502)	✓	×	×	×	✓	✓	×	×	×	×	×	×	×	×	×	×	✓	✓	×	×	✓	×	×	×	×	×	×	×
Power Electronics(15A02503)	✓	×	×	×	✓	✓	×	×	×	×	×	×	×	×	×	×	✓	✓	×	×	✓	×	✓	×	×	×	×	×
Electrical Machines – III(15A02504)	✓	×	×	×	×	✓	×	×	×	×	×	×	×	×	×	×	✓	✓	×	×	✓	×	✓	×	×	×	×	×
Digital Circuits & Systems(15A04510)	×	×	×	×	×	✓	×	×	×	×	×	×	×	×	×	×	✓	✓	×	×	✓	×	×	×	×	×	×	×
Electrical Machines Lab – II(15A02506)	✓	✓	×	×	×	✓	×	×	×	×	×	×	×	×	×	×	✓	✓	×	×	✓	×	✓	×	×	×	×	×
Electrical Measurements Lab(15A02507)	✓	✓	×	×	×	✓	×	×	×	×	×	×	×	×	×	×	✓	✓	×	×	✓	×	✓	×	×	×	×	×
Social Values & Ethics(15A99501)	×	×	×	×	×	✓	×	×	✓	×	×	×	×	×	×	×	✓	✓	×	×	✓	✓	×	×	×	×	×	×

S.No	Teaching Method	S.No	Teaching Method	S.No	Teaching Method	S.No	Teaching Method
1	Industrial Interaction	8	Language Lab	15	Public Talks	22	Case Studies
2	Demonstration	9	Group discussions	16	Google classroom	23	Research Projects
3	Internships	10	Training Programs	17	PPT	24	Worksheet
4	Workshops	11	Activity based learning	18	Viva	25	Project based learning
5	Simulation	12	Symposiums	19	MOOC's	26	Prototype Model
6	Seminars	13	Guest Lectures	20	Hackathons	27	Virtual Labs
7	Riviews	14	Flipped classrooms	21	Video lecturers	28	Poster Presentation

HEED
HEED



SANTHIRAM ENGINEERING COLLEGE: NANDYAL

DEPARTMENT OF MECHANICAL ENGINEERING

Name of the course	Teaching Methods																											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Fluid Mechanics and Hydraulic Machines (15A01510)	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗
Thermal Engineering – II (15A03501)	✓	✗	✗	✓	✗	✓	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✓	✓	✗	✗	✓	✗	✗	✗	✗	✓	✗	✗
Dynamics of Machinery (15A03502)	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗
Machine Tools (15A03503)	✓	✗	✗	✓	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✓	✗	✗	✓	✗	✓	✗	✗
Design of Machine Members – I (15A03504)	✓	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗	✓	✗	✗	✗	✓	✓	✗	✗	✓	✗	✗	✓	✗	✓	✗	✗
Entrepreneurship(15A03505)	✓	✗	✗	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✓	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗
Fluid Mechanics and Hydraulic Machines Laboratory (15A01511)	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗
Machine Tools Laboratory (15A03508)	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗
Social Values & Ethics (15A99501)	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗		✗	✗	✗	✗	✗	✗	✗

S.No	Teaching Method	S.No	Teaching Method	S.No	Teaching Method	S.No	Teaching Method
1	Industrial Interaction	8	Language Lab	15	Public Talks	22	Case Studies
2	Demonstration	9	Group discussions	16	Google classroom	23	Research Projects
3	Internships	10	Training Programs	17	PPT	24	Worksheet
4	Workshops	11	Activity based learning	18	Viva	25	Project based learning
5	Simulation	12	Symposiums	19	MOOC's	26	Prototype Model
6	Seminars	13	Guest Lectures	20	Hackathons	27	Virtual Labs
7	Riviews	14	Flipped classrooms	21	Video lecturers	28	Poster Presentation

Ramesh
HOD



SANTHIRAM ENGINEERING COLLEGE: NANDYAL

DEPARTMENT OF MASTER OF BUSINESS ADMINISTRATION

Name of the course	Teaching Methods																											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Business Ethics & Corporate Governance (17E00301)	x	x	x	x	x	✓	x	x	✓	x	✓	x	x	x	x	✓	x	x	x	x	x	✓	x	x	x	x	x	x
Green Business Management (17E00302)	x	x	x	x	x	✓	x	x	✓	x	✓	x	x	x	x	✓	x	x	x	x	✓	x	x	x	x	x	x	x
Entrepreneurship Development (17E00303)	✓	x	x	✓	x	✓	x	x	✓	x	✓	x	✓	✓	✓	x	✓	x	x	x	✓	✓	x	x	x	x	x	x
Product and Brand Management(17E00305)	✓	x	x	x	x	✓	x	x	✓	x	✓	✓	✓	✓	x	x	✓	✓	x	x	x	✓	✓	x	x	x	x	x
Human Resource Development(17E00306)	x	x	x	x	x	✓	✓	x	✓	✓	✓	✓	x	x	✓	x	✓	✓	✓	x	✓	✓	✓	x	x	x	x	x
Financial Institutions and Services(17E00308)	x	x	x	x	x	✓	✓	x	✓	x	✓	✓	x	✓	x	x	✓	✓	✓	x	✓	✓	✓	x	x	x	x	x
Investment and Portfolio Management (17E00312)	x	x	x	✓	x	✓	✓	x	✓	x	✓	✓	x	✓	x	x	✓	✓	x	x	✓	✓	✓	x	x	x	x	x
Performance Management (17E00314)	x	x	x	x	x	✓	✓	x	✓	✓	✓	✓	x	x	✓	x	✓	x	✓	x	x	✓	✓	x	x	x	x	x
Advertising and Sales Promotion Management (17E00317)	✓	x	x	x	x	✓	✓	x	✓	x	✓	✓	x	✓	x	x	✓	x	x	x	✓	✓	✓	x	✓	x	x	x
Business Simulation Lab (17E00320)	x	✓	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	✓	x	x	x	x	x	x	x	x	x	x

S.No	Teaching Method	S.No	Teaching Method	S.No	Teaching Method	S.No	Teaching Method
1	Industrial Interaction	8	Language Lab	15	Public Talks	22	Case Studies
2	Demonstration	9	Group discussions	16	Google classroom	23	Research Projects
3	Internships	10	Training Programs	17	PPT	24	Worksheet
4	Workshops	11	Activity based learning	18	Viva	25	Project based learning
5	Simulation	12	Symposiums	19	MOOC's	26	Prototype Model
6	Seminars	13	Guest Lectures	20	Hackathons	27	Virtual Labs
7	Riviews	14	Flipped classrooms	21	Video lecturers	28	Poster Presentation


 HMBA



SANTHIRAM ENGINEERING COLLEGE: NANDYAL

Lesson Plan

Branch : CSE Year & Semester : III-I
Name of the faculty : Ms.M.Madhulatha Department : CSE
Subject Name : Operating System Subject Code : 15A05501

Text Books

1. Operating System Concepts, Abraham Silberchatz, Peter B. Galvin, Greg Gagne, Wiley , Eight Edition, 2014.

Reference Books

1. Operating systems by A K Sharma, Universities Press.
2. Operating Systems, S.Haldar, A.A.Aravind, Pearson Education..
3. Modern Operating Systems, Andrew S Tanenbaum, Second Edition, PHI.
4. Operating Systems, A.S.Godbole, Second Edition, TMH.

Web Resource:

1. <http://ndl.iitkgp.ac.in/document/aUUzSzg0NXozaDZheVpnMEtnb3lZclAvRWlIWmN0VUxxeFpzVURYaUxyWT0>
2. <https://nptel.ac.in/courses/106/105/106105214/>
3. <https://www.cse.iitb.ac.in/~mythili/os/>

S.No	Topic(s)	Book Reference	Teaching Methodology
1	Operating Systems Overview	T1	Black Board
2	Operating system functions	T1	Black Board
3	Operating system structure	T1	Black Board
4	operating systems Operations	T1	PPT
5	protection and security	T1	PPT
6	Computing Environments	T1	PPT
7	Open- Source Operating Systems	R1	PPT
8	Operating System Services	T1	Black Board
9	User and Operating-System Interface	T1	PPT
10	systems calls, Types of System Calls	T1	Black Board
11	system programs, operating system	T1	PPT

	structure		
12	operating system debugging, System Boot	T1	Black Board
13	Process concept, process Scheduling	W1	Video Lecture
14	Operations on processes	R2	PPT
15	Inter process Communication Examples	T1	Black Board
16	Threads overview	T1	PPT
17	Multicore Programming	T1	PPT
18	Multithreading Models, Thread Libraries	T1	PPT
19	Implicit Threading, Threading Issues	T1	PPT
20	The critical-section problem,	R2	PPT
21	Peterson's Solution, Synchronization Hardware,	R2	PPT
22	Mutex Locks, Semaphores,	R1	PPT
23	Classic problems of synchronization	T1	GD/Debate
24	Monitors, Synchronization examples,	W2	Video Lecture
25	Alternative approaches	R1	PPT
26	Scheduling-Criteria, Scheduling Algorithms	T1	PPT
27	Thread Scheduling, Multiple-Processor Scheduling	T1	PPT
28	Real-Time CPU Scheduling,	R1	PPT
29	Algorithm Evaluation.	T1	PPT
30	Swapping, contiguous memory allocation	T1	PPT
31	Segmentation, paging, structure of the page table.	T1	Demonstration
32	demand paging, page-replacement	T1	PPT
33	Allocation of frames, Thrashing	T1	Seminar
34	Memory-Mapped Files, Allocating Kernel Memory	T1	PPT
35	System Model, deadlock characterization	T1	PPT
36	Methods of handling Deadlocks	T1	PPT
37	Deadlock prevention, Detection and Avoidance	T1	PPT
38	Recovery from deadlock	R2	PPT
39	Overview of Mass-storage structure, Disk structure	T1	PPT

40	Disk attachment, Disk scheduling	T1	PPT
41	Swap-space management, RAID structure	R2	PPT
42	Stable-storage implementation.	T1	Case Study
43	The concept of a file, Access Methods	T1	PPT
44	Directory and Disk structure	T1	PPT
45	File system mounting, File sharing	W3	PPT
46	Protection, File-system structure	T1	PPT
47	File-system Implementation	R2	PPT
48	Directory Implementation Allocation Methods	R3	PPT
49	Free-Space management	T1	PPT
50	I/O Hardware, Application I/O interface	T1	PPT
51	Kernel I/O subsystem,	R3	Black Board
52	Transforming I/O requests to Hardware operations	T1	PPT
53	Goals of Protection, Principles of Protection	T1	PPT
54	Domain of protection, Access Matrix,	T1	PPT
55	Implementation of Access Matrix	T1	PPT
56	Access control,	W3	Video Lecture
57	Revocation of Access Rights	T1	PPT
58	Capability- Based systems	R2	PPT
59	Language – Based Protection	R2	PPT
60	The Security problem, Program threats	R2	Group Discussion
61	System and Network threats	R2	PPT
62	Cryptography as a security tool	R2	PPT
63	User authentication, Implementing security defenses	W3	Video Lecture
64	Firewalling to protect systems and networks	R3	Viva
65	Computer–security classifications	T1	PPT



Signature of the Faculty member

LECTURE RECORD

Subject : Operating Systems

Duration of each exam (Mid) : 90-min

Credits : 03

Max. Marks : 30

No. of Internal Exams (Mids) : 2

S.No.	Date	Topic Covered / Exercise Completed	Remarks
<u>UNIT-I</u>			
1	29/12/2020	Operating System Overview : Operating System	BB
2	30/12/20	functions, OS Structure, OS Operations,	BB
3	31/12	Protection & Security, Computing Environments.	PPT
4	2/1	Open-Source Operating System.	BBT
5	4/1/21	System Structures : Operating System Services	PPT
6	18/1/21	Uses and Operating - System, Interface.	PPT
7	19/1/21	System calls, types of System calls.	BB
8	19/1/21	System programs, OS Structure, OS Debugging	BB.
		System Boot.	
9	20/1/21	Process : Process Concept, Process Scheduling,	BB
		Operations On process / Inter Process Communication	BB
10	21/1/2021	Examples of IPC Systems.	
<u>* END OF I-UNIT *</u>			
<u>UNIT-II</u>			
11	22/1/2021	Threads : Overview, Multicore Programming,	BB
12	23/1/2021	Multithreading Models, Thread Libraries,	BB
13	25/1/2021	Implicit threading, Threading Issues.	BB
14	27/1/2021	Process Synchronization : The critical-section	BB
15	28/1/2021	Peterson's Solution, Synchronization hardware	BB
		Mutex Locks, Semaphores,	
16	29/1/2021	classic Problem of Synchronization	PPT
		Monitors, Synchronization Examples.	
17	30/1/2021	Alternative approaches.	PPT

LECTURE RECORD

Subject : Operating Systems

Duration of each exam (Mid) : 90 min

Credits : 03

Max. Marks : 30

No. of Internal Exams (Mids) : 2

S.No.	Date	Topic Covered / Exercise Completed	Remarks
18	1/2/2024	CPU Scheduling : Scheduling - criteria	BB
19	2/2	Scheduling Algorithms, Thread Scheduling.	BB
20	2/2	Multiple-Processor Scheduling,	BB
21	3/2	Real-Time CPU Scheduling.	BB
22	3/2	Algorithm Evaluation	BB
<u>UNIT - III</u>			
23	5/2	Memory Management! Swapping, Contiguous	BB
24	5/2	Memory allocation, Segmentation paging,	BB
25	6/2	Structure of the page table.	BB
26	8/2	Virtual Memory! Demand paging,	BB
27	9/2	Page-replacement, Allocation of frames,	PPT
28	9/2	Thrashing, Memory-Mapped files, Allocating KM.	BBT
29	10/2	Deadlocks! System Model, Deadlock Characterization	PPT
30	11/2	Methods of Handling Deadlocks, Deadlock	BB
31	12/2	Prevention, Detection & Avoidance.	Seminar
32	15/2	Recovery from Deadlock.	BB
* END OF UNIT - III *			
<u>UNIT - IV</u>			
33	15/2	Mass-storage Structure! Overview of Mass-	PPT
34	16/2	storage Structure, Disk Structure	PPT
35	18/2/2024	Disk attachment, Disk Scheduling.	PPT
36	19/2/2024	Swap-space management, RAID Structure	PPT
37	20/2	Stable-storage Implementation.	NPTCL ^{Video}
38	22/2	File System Interface! The Concept of a file,	PPT
39	23/2	Access Methods. Directory & Disk Structure	PPT

LECTURE RECORD

Subject : Operating Systems

Duration of each exam (Mid) : 90 min

Credits : 03

Max. Marks : 30

No. of Internal Exams (Mids) : 2

S.No.	Date	Topic Covered / Exercise Completed	Remarks
39	25/2	File System Mounting, File Sharing, Protection	PPT
40	26/2	File System Implementation & file-system structure	PPT
41	26/2	File System Implementation Directory	PPT
42	27/2	Allocation Methods, Free-Space Management	Open Book
<u>UNIT - IV - END.</u>			
<u>UNIT - V.</u>			
43	2/3/2024	I/O System & I/O Hardware, Application	Case Study
44	4/3/2024	I/O Interface, Kernel I/O Subsystem	Seminar
45	5/3/2024	Transforming I/O requests to H/W operations	Seminar
46	6/3/2024	Protection & Goals of protection, Principles of	PPT
47	8/3	Protection, Domain of protection, Access Matrix	Viva Viva
48	9/3	Implementation of AM, Access Control, Revocation of AR	PPT
49	12/3	Capability-Based System - Language - BP.	PPT
50	13/3	Security & The Security Problem, Program	PPT
51	15/3	Threats, System & OS threats	Seminar
52	16/3	Cryptography as a Security Tool	Viva Viva
53	18/3	User authentication Implementing Security defenses	PPT
54	19/3	Firewalling to protect System & networks	Seminar
55	20/3	Computer Security Classification	PPT
<u>END of UNIT - V.</u>			
<u>* Syllabus Completed *</u>			

[Signature]

[Signature]

✓