



## LESSON PLAN

**Course Name:** DESIGN AND ANALYSIS OF ALGORITHMS

**Programme:** B.Tech

**SEM:** V

**Department:** IT

### Course Educational objectives:

- Students will have an appreciation of the history and evolution of computer graphics, both hardware and software. Assessed by written homework assignment.
- Students will have an understanding of 2D graphics and algorithms which includes line drawing, polygon filling, clipping, and transformations.
- Students will understand the concepts of and techniques used in 3D computer graphics, including viewing transformations, hierarchical modelling, colour, lighting and texture mapping.
- Students will be introduced to algorithms and techniques fundamental to 3D computer graphics and will understand the relationship between the 2D and 3D versions of such algorithms.

### Course Outcomes:

This course will enable you to:

- Able to understand the graphics applications and various interactive input and output devices.
- Able to understand and draw line, circle and ellipse using algorithms and functions to implement graphic primitives
- Able to know different geometrical transformations in 2D
- Able to learn regarding 2D Coordinate transformation, viewing functions and clipping algorithms
- Able to understand the 3D display methods, geometrical transformations and coordinate transformations.

**Pre requisite:** Knowledge of Coordinate system in Mathematics.

S.NO	Tentative Date	Topics to be covered	Actual Date	Num. of classes	Content Delivery Methods
<b>UNIT-1</b>					
1	22-6-15	Introduction	22	1	DM1
2	23-6-15	Algorithm	23	1	DM1/DM6
3	24-6-15	Design & analysis of Algorithms	24	1	DM1/DM6
4	25-6-15	Space Complexity	25	1	DM1/ DM6
5	27-6-15	Time complexity	26	1	DM1/ DM6
6	29-6-15	Asymptotic Notations	27	1	DM1/ DM6
7	30-6-15	Tutorial-1	1	1	DM2
8	1-7-15	Divide & Conquer General method	29	1	DM1/DM6
9	2-7-15	Binary Search	30	1	DM1/DM6
10	4-7-15	Finding Maximun and Minimum	2	1	DM1/ DM6
11	6-7-15	Example	4	1	DM1
12	7-7-15	Merge sort	6	1	DM2
13	8-7-15	Example	8	1	DM1
14	9-7-15	Tutorial-2	9	1	DM2
<b>UNIT-II</b>					
15	11-7-15	Greedy Method General method	11	1	DM1/ DM6
16	13-7-15	Knapsack problem	13	1	DM1/ DM6
17	14-7-15	Example	13		
18	15-7-15	Tree Vertex Splitting	15	1	DM1/ DM6
19	16-7-15	Example	16		
20	20-7-15	Job –Sequencing with deadlines	20	1	DM1/ DM6
21	21-7-15	Example	20	1	DM1
22	22-7-15	Tutorial-3	21	1	DM2
23	23-7-15	Minimum cost spanning tree-prim's algorithm	25	1	DM1/ DM6
24	25-7-15	Krushkals algorithm	27	1	DM1
25	27-7-15	Optimal Storage on Tapes	27	1	DM1/ DM6
26	28-7-15	Example	29		
27	29-7-15	Optimal Merge Pattern	30	1	DM1
28	30-7-15	Example	1		
29	1-8-15	Single source Shortest path	3	1	DM1
30	3-8-15	Example	4	1	DM1
		Tutorial-4	5	1	DM2
<b>UNIT – III</b>					
		Dynamic Programming-General method		1	DM1/ DM6
		Multistage Graph		1	DM1/ DM6
		All pairs Shortest path		1	DM1/ DM6
31	4-8-15	Example		1	DM1
32	5-8-15	Single source Shortest path		1	DM1/ DM6
33	6-8-15	Example		1	DM1

34	8-8-15	Optimal Binary Search Trees		1	DM1
35	18-8-15	Tutorial-5		1	DM2
36	19-8-15	String Editing		1	DM1
37	20-8-15	0/1 Knapsack		1	DM1
38	22-8-15	Reliability Design		1	DM1
39	24-8-15	Travelling Salesman Problem		1	DM1/ DM6
40	25-8-15	Example		1	DM1
41	26-8-15	Flow shop Scheduling		1	DM1/ DM6
42	27-8-15	Example		1	DM1
43	29-8-15	Tutorial-6		1	DM2
<b>UNIT – IV</b>					
44	31-8-15	Techniques for Binary trees		1	DM1/ DM6
45	1-9-15	Techniques for Graphs		1	DM1/ DM6
46	2-9-15	Connected components		1	DM1/ DM6
47	3-9-15	Spanning Trees		1	DM1/ DM6
45	7-9-15	Bi-Connected Components		1	DM1
46	8-9-15	DFS		1	DM1
47	9-9-15	Tutorial-7		1	DM2
48	10-9-15	Back tracking –General method		1	DM1
49	12-9-15	The 8-Queens Problem		1	DM1
50	14-9-15	Sum of Subsets		1	DM1/ DM6
48	15-9-15	Graph Coloring		1	DM1
49	16-9-15	Hamiltonian cycle		1	DM1
50	17-9-15	Knapsack problem		1	DM1
51	19-9-15	Example		1	DM1
52	21-9-15	Tutorial-8		1	DM2
<b>UNIT – V</b>					
53	22-9-15	Branch and Bound –method		1	DM1
54	23-9-15	0/1 Knapsack Problem		1	DM1/ DM6
55	26-9-15	Travelling Sales person		1	DM1/ DM6
56	28-9-15	Example		1	DM1
57	29-9-15	Efficiency Considerations		1	DM1/ DM6
58	30-9-15	Tutorial-9		1	DM2
59	1-10-15	NP hard and NP complete- Basic concepts		1	DM1
60	3-10-15	Cook's Theorem		1	DM1
61	5-10-15	NP-hard Graph Problems		1	DM1
62	6-10-15	NP –hard Scheduling Problem		1	DM1
63	7-10-15	Example		1	DM1
64	8-10-15	Some Simplified NP –hard Problems		1	DM1/ DM6
65	10-10-15	Examples		1	DM1
66	12-10-15	Tutorial-10		1	DM2
67	13-10-15	Revision		1	DM1/ DM6
68	14-10-15	Revision		1	DM1/ DM6
69	15-10-15	Revision		1	DM1/ DM6
70	17-10-15	Revision		1	DM1/ DM6
TOTAL					
Total number of classes required to complete the syllabus				66	

Total number of classes available as per Schedule	70	
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**NOTE: DELIVERY METHODS: DM1:** Lecture interspersed with discussions/BB, **DM2:** Tutorial, **DM3:** Lecture with a quiz, **DM4:** Assignment/Test, **DM5:** Demonstration (laboratory, field visit ), **DM6:** Presentations/PPT

At the End of the course, students attained the **Course Outcomes: CO1, CO2, CO3, CO4, CO5**& sample proofs are enclosed in Course file.

<b>Signature</b>			
	<b>Name of the Faculty</b>	<b>Name of Course Co-ordinator</b>	<b>HOD</b>
	Mr. M. Mahesh Kumar	T.V. NAGARAJU	Dr. N. Ravi Sankar



## LESSON PLAN

Course Name: T323 Theory of Computations  
Programme: B.Tech

SEM: V  
Department:IT

S No.	Tentative Date	Topics to be covered	Actual Date	Num. of classes	Content Delivery Methods
<b>UNIT-I: Fundamentals, Introduction to Finite Automata</b>					
1.	22/6/2015	Fundamentals: Strings, Alphabet		1	DM1
2.	23/6/2015	Language, Operations, Finite state Machine		1	DM1
3.	25/6/2015	Definitions, Finite Automata model		1	DM1
4.	26/6/2015	DFA and its representation		1	DM1
5.	27/6/2015	Acceptability of strings by DFA		1	DM1
6.	29/6/2015	Construction of DFA		1	DM1
7.	30/6/2015	Construction of DFA		1	DM1
8.	2/7/2015	Construction of DFA DFA vs NFA		1	DM1
9.	3/7/2015	Construction of NFA		1	DM1
10	4/7/2015	<b>Tutorial-1</b>		1	DM2
11	6/7/2015	<b>NFA to DFA</b> Conversion		1	DM1
12	7/7/2015	<b>NFA to DFA</b> Conversion, NFA with $\epsilon$ moves		1	DM1
13	9/7/2015	NFA with $\epsilon$ moves to without $\epsilon$ moves		1	DM1
14	10/7/2015	Minimisation of FA		1	DM1
15	13/7/2015	Equivalence of two FA's		1	DM1
16	14/7/2015	FA with output		1	DM1
17	16/7/2015	Moore Machine		1	DM1

18	17/7/2015	Mealy Machine		1	DM1
19	20/7/2015	Conversion of moore to mealy M/C		1	DM1
20	21/7/2015	Conversion of Mealy to Moore M/C		1	DM1
21	23/7/2015	<b>Tutorial-2</b>		1	DM2
22	24/7/2015	Conversion of Mealy to Moore M/C		1	DM1
<b>UNIT-II Regular Languages</b>					
23	25/7/2015	Regular languages,Regular sets,R.E		1	DM1
24	27/7/2015	R.E		1	DM1
25	28/7/2015	Writing the R.E		1	DM1
26	30/7/2015	Identity Rules		1	DM1
27	31/7/2015	Conversion of R.E to FA		1	DM1
28	1/8/2015	Conversion of FA to R.E		1	DM1
29	3/8/2015	Pumping lemma of Regular sets		1	DM1
30	4/8/2015	Pumping lemma of Regular sets		1	DM1
31	6/8/2015	Closure Properties of Regular sets		1	DM1
32	7/8/2015	<b>Tutorial-3</b>		1	DM2
33	10/8/2015 to 14/8/2015	<b>I – MID Examination</b>			
<b>UNIT-III Grammar Formalisation</b>					
34	17/8/2015	Regular Grammars-right linear and left linear grammars		1	DM1
35	18/8/2015	Regular Grammars-right linear and left linear grammars		1	DM1
36	20/8/2015	Equivalence between regular linear grammar and FA		1	DM1
37	21/8/2015	Equivalence between regular linear grammar and FA		1	DM1
38	22/8/2015	Inter Conversion		1	DM1
39	24/8/2015	Inter Conversion		1	DM1

40	25/8/2015	Context free grammar		1	DM1
41	26/8/2015	Context free grammar		1	DM1
42	27/8/2015	Derivation trees		1	DM1
43	28/8/2015	<b>Tutorial-IV</b>		1	DM4
44	31/8/2015	Derivation trees		1	DM1
45	1/9/2015	Sentential forms			DM2
46	3/9/2015	Rightmost and Leftmost derivation of Strings		1	DM1
47	4/9/2015	CFG:Ambiquity in CFG		1	DM1
48	7/9/2015	Minimisation of CFG		1	DM1
49	8/9/2015	<b>Tutorial-V</b>		1	DM2
50	10/9/2015	Chomsky normal form		1	DM1
51	11/9/2015	Pumping Lemma for CFL		1	DM3
<b>UNIT-IV:Push Down Automata</b>					
52	14/9/2015	Push Down Automata,definition		1	DM1
53	15/9/2015	Model,acceptance of CFL		1	DM1
54	18/9/2015	Acceptance by final state		1	DM1
55	19/9/2015	Acceptance by empty state and its equivalence		1	DM2
56	21/9/2015	Equivalence of CFL and PDA			DM1
57	22/9/2015	Equivalence of CFL and PDA		1	DM1
58	24/9/2015	Inter Conversion		1	DM1
59	26/9/2015	Inter Conversion		1	DM1
60	28/9/2015	Chomsky hierarchy of languages		1	DM1
61	29/9/2015	<b>Tutorial-VI</b>		1	DM2
62	1/10/2015	Context sensitive languages		1	DM1
63	3/10/2015	LR(0) grammar		1	DM1
64	5/10/2015	Decidability problems		1	DM1

65	6/10/2015	Decidability problems		1	DM1
66	8/10/2015	<b>Tutorial-VII</b>		1	DM2
<b>UNIT-V: Turing Machine</b>					
67	9/10/2015	Definition and Introduction		1	DM1
68	12/10/2015	Computable functions		1	DM1
69	13/10/2015	Recursively enumerable languages		1	DM1
70	15/10/2015	<b>Tutorial-VIII</b>		1	DM2
71	16/10/2015	Design of TM		1	
72	17/10/2015	<b>Tutorial-IX</b>		1	DM2
73	26/10/2015 to 31/10/2015	<b>II-MID EXAMS</b>			
		Total		72	
Total number of classes required to complete the syllabus				75	
Total number of classes available as per Schedule				70	

**NOTE: DELIVERY METHODS:** **DM1:** Lecture interspersed with discussions/BB, **DM2:** Tutorial, **DM3:** Lecture with a quiz, **DM4:** Assignment/Test, **DM5:** Demonstration (laboratory, field visit ), **DM6:** Presentations/PPT

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<b>Signature</b>			
	<b>Name of the Faculty</b>	<b>Name of Course Co-ordinator</b>	<b>HOD</b>





## LESSON PLAN

Course Code & Course Name: T267 – OPERATING SYSTEMS  
Programme: B.Tech

SEM: V  
Department: IT

S No.	Tentative Date	Topics to be covered	Actual Date	Content Delivery Methods
UNIT-I				
1.	22/06/2015	Introduction to OS		DM1
2.	23/06/2015	Lab Program Explanation – RR algorithm		DM1
3.	24/06/2015	Computer System Organization		DM1
4.	25/06/2015	Computer System Architecture		DM1
5.	26/06/2015	O.S. Structure		DM1
6.	27/06/2015	O.S. Operations, Process Management		DM1
7.	29/06/2015	Memory Management , Storage Management		DM1
8.	30/06/2015	Caching, I/O Systems, Lab Program Explanation – FCFS		DM1
9.	01/07/2015	Protection & Security, Distributed Systems, Special Purpose Systems		DM1
10.	02/07/2015	Operating System Services		DM1
11.	03/07/2015	System Calls		DM1
12.	04/07/2015	Types of System Calls		DM1
13.	06/07/2015	<b>Tutorial - I</b>		DM2
14.	07/07/2015	Lab Explanation – Priority Scheduling		DM1
15.	08/07/2015	Types of System Calls		DM1, DM8
16.	09/07/2015	System Programs, Design and Implementation of OS		DM1
17.	10/07/2015	OS Structure		DM1
18.	13/07/2015	Virtual machines:- Definition, History, Benefits		DM1

19.	14/07/2015	Virtual Machines :- Simulation, para-Virtualization, Lab Program Explanation – Seq. File Allocation		DM1, DM8
20.	15/07/2015	OS Generation , System Boot		DM1, DM8
21.	16/07/2015	Lab Explanation – Linked File Allocation		DM1, DM8
<b>UNIT - II</b>				
22.	17/07/2015	Process Concept, Process Scheduling		DM1, DM8
23.	20/07/2015	<b>Tutorial-2</b>		DM1, DM8
24.	21/07/2015	Lab Program Explanation – Indexed File Allocation		DM1, DM8
25.	22/07/2015	<b>Revision</b>		DM2
26.	23/07/2015	Lab Program explanation, Doubts clarification		DM5
27.	24/07/2015	Lab Program explanation, Doubts clarification		DM5
28.	25/07/2015	Operations on processes		DM1, DM8
29.	27/07/2015	Inter Process Communication(IPC)		DM1, DM8
30.	29/07/2015	Example IPC Systems		DM1, DM8
31.	30/07/2015	Comm. In Client-Server Systems – Sockets, RPC		DM1,DM8
32.	31/07/2015	Comm. In Client-Server Systems – PIPES		DM1,DM8
33.	01/08/2015	MultiThreading – Overview, Threading Models		DM1, DM8
34.	03/08/2015	MultiThreading - Libraries, Issues.		DM1, DM8
35.	04/08/2015	MultiThreading - Issues		DM1, DM8
36.	05/08/2015	Process Scheduling – Basic Concepts, Criteria		DM1, DM8
37.	06/08/2015	Process Scheduling algo.– FCFS, SJF		DM1, DM8

38.	07/08/2015	Process Scheduling algo. – Priority, RR, Multilevel Queue, Multilevel Feedback Queue, Multiple Processor Scheduling		DM2
39.	18/08/2015	Lab Program Explanation		DM1, DM8
<b>UNIT - III</b>				
40.	19/08/2015	<b>Synchronization</b> - The Critical-Section Problem		DM1, DM8
41.	20/08/2015	Peterson's Solution		DM1, DM8
42.	21/08/2015	Synchronization Hardware		DM2
43.	22/08/2015	Semaphores		DM1, DM8
44.	24/08/2015	Classic Problems of Synchronization		DM1, DM8
45.	25/08/2015	Lab Program Explanation		DM1, DM8
46.	26/08/2015	Monitors		DM1, DM8
47.	27/08/2015	Monitors		DM1, DM8
48.	28/08/2015	Synchronization Examples		DM1, DM8
49.	29/08/2015	Synchronization Examples and Atomic Transactions		DM1, DM8
50.	31/08/2015	Atomic Transactions		DM2
51.	01/09/2015	Lab Program Explanation		DM1, DM8
52.	02/09/2015	<b>Tutorial - 3</b>		DM1, DM8
53.	03/09/2015	<b>Deadlocks</b> - System Model, Deadlock Characterization		DM1, DM8
54.	04/09/2015	Methods for handling Deadlocks		DM1, DM8
55.	07/09/2015	Deadlock Prevention		DM1, DM8
56.	08/09/2015	Lab Program Explanation		DM1, DM8
57.	09/09/2015	Deadlock Avoidance		DM1, DM8
58.	10/09/2015	Deadlock Detection		DM1, DM8

59.	11/09/2015	Recovery from Deadlock		DM2
60.	14/09/2015	<b>Tutorial -4</b>		DM1, DM8
61.	15/09/2015	Lab Program Explanation		DM1, DM8
<b>UNIT – IV</b>				
62.	16/09/2015	<b>Memory Management Strategies -</b> Swapping, Contiguous Memory allocation		DM1, DM8
63.	18/09/2015	Paging, Structure of Page Table		DM1, DM8
64.	19/09/2015	Segmentation		DM1, DM8
65.	21/09/2015	<b>Tutorial-5</b>		DM1, DM8
66.	22/09/2015	Lab Program Explanation		DM1, DM8
67.	23/09/2015	Demand Paging		DM1, DM8
68.	25/09/2015	Page replacement		DM2
69.	26/09/2015	Allocation of Frames		DM1, DM8
70.	28/09/2015	Thrashing		DM1, DM8
71.	29/09/2015	Memory-Mapped Files		DM1, DM8
72.	30/09/2015	Allocating Kernel Memory		DM1, DM8
<b>UNIT-V</b>				
73.	01/10/2015	<b>File System - The Concept of a File,</b> Access Methods		DM1, DM8
74.	03/10/2015	Directory Structure		DM1, DM8
75.	05/10/2015	File System Mounting		DM1, DM8
76.	06/10/2015	File sharing, Protection		DM1, DM8
77.	07/10/2015	<b>Tutorial-6</b>		
78.	08/10/2015	File System Structure, File System Implementation		DM1, DM8
79.	09/10/2015	Directory Implementation		DM1, DM8
80.	12/10/2015	Allocation Methods		DM1, DM8
81.	13/10/2015	Free space Management		DM1, DM8

82.	14/10/2015	Efficiency and Performance		DM1, DM8
83.	15/10/2015	Recovery		DM1, DM8
84.	16/10/2015	<b>Tutorial-7</b>		DM1, DM8
85.	17/10/2015	Revision		DM1, DM8

**NOTE: DELIVERY METHODS:** **DM1:** Lecture interspersed with discussions/BB, **DM2:** Tutorial, **DM3:** Lecture with a quiz, **DM4:** Assignment/Test, **DM5:** Demonstration (laboratory, field visit), **DM6:** Group Discussion, **DM7:** Group Assignment/ Project, **DM8:** Presentations/PPT, **DM9:** Asynchronous Discussion.

<b>Signature</b>			
	<b>Name of the Faculty</b>	<b>Name of Course Co-ordinator</b>	<b>HOD</b>
	Michael Sadgun Rao Kona		Dr. D. Naga Raju



**LESSON PLAN**

**Course Code& Course Name:** T308 –SOFTWARE ENGINEERING **SEM:** V  
**Programme:** B.Tech **Department:** IT  
**Course :** III/IV B TECH(V SEM)

**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (Autonomous)**

Department of Information Technology

LESSON PLAN

S.no		DATE	TOPIC TO BE COVERED	ACTUAL DATE	CONTENT DELIVERY METHODS
<b>UNIT-I</b>					
1	<b>WEEK1</b>	22/06/2015	Introduction to s/w engineering		DM1,DM8
2		24/06/2015	The evolving role of s/w		DM1
3		25/06/2015	Definition of s/w, changing the nature of s/w		DM1
4		26/06/2015	changing the nature of s/w		DM1
5		27/06/2015	Legacy s/w, Software myths		DM1
6	<b>WEEK2</b>	29/06/2015	Software myths		DM1
7		01/07/2015	Introduction to s/w process and process layered technology		DM1
8		02/07/2015	<b>Tutorial-I</b>		DM2
9		03/07/2015	Process patterns, different types		DM1,DM8
10		04/07/2015	Process framework & Its phases		DM1,DM8
11	<b>WEEK3</b>	06/07/2015	A Process framework & Its phases		DM1
12		08/07/2015	Umbrella activities of process framework		DM1
13		09/07/2015	Umbrella activities of process framework		DM8
14		10/07/2015	S/W process assessment & its principles		DM1
15		11/07/2015	CMMI, Process patterns		DM8
16	<b>WEEK4</b>	13/07/2015	<b>Tutorial-II</b>		DM2
17		15/07/2015	Process assessment		DM1
18		16/07/2015	Personal and team process models		DM1
19		17/07/2015	Process technology		DM1,DM8

20		20/07/2015	Product process		DM2
21	<b>WEEKS</b>	<b>UNIT-II</b>			
22		22/07/2015	Process Models Introduction		DM1,DM8
23		23/07/2015	Prospective models		DM1,DM8
24		24/07/2015	Water fall model its merits and demerits		DM1,DM8
		25/07/2015	V-shaped Model and its merits and demerits		DM1,DM8
25		25/07/2015	RAD Model ,component based model		DM1
26		<b>WEEK 6</b>	27/07/2015	<b>Tutorial-3</b>	
27	29/07/2015		Concurrent development model		DM1,DM8
28	31/07/2015		Incremental model its merits and demerits		DM1,DM8
29	01/07/2015		Prototype model its merits demerits		DM8
30	03/08/2015		Spiral model its merits and demerits		DM8
31	<b>WEEK7</b>	05/08/2015	Functional requirements and Non functional requirements		DM8
32		06/08/2015	Functional requirements and Non functional requirements		DM1
33		07/08/2015	<b>Tutorial-4</b>		DM2
34		08/08/2015	<b>Review of Unit-2</b>		DM1,DM8
35		<b>MID-I(10/08/2015 TO 17/08/2015)</b>			
<b>UNIT-III</b>					
36	<b>WEEK8</b>	19/08/2015	Introduction to requirements engineering		DM1,DM8
37		20/08/2015	RE tasks		DM1,DM8
38		21/08/2015	Initiating the RE process		DM1,DM8
39		22/08/2015	Eliciting requirements		DM1

40	WEEK9	24/08/2015	Developing Use cases		DM8	
41		26/08/2015	Building the analysis models		DM1	
42		27/08/2015	Negotiating and validating requirements		DM1	
43		28/08/2015	<b>Tutorial-5</b>		DM2	
44		29/08/2015	Introduction to requirement analysis		DM8	
45	WEEK10	31/08/2015	Analysis modeling approaches		DM8	
46		02/09/2015	Data modeling concepts		DM1,DM8	
47		03/09/2015	Data modeling concepts, OOA, scenario based modeling		DM1,DM8	
48		04/09/2015	Flow based Modeling		DM1,DM8	
49	WEEK11	07/09/2015	Class based modeling, Creating a behavior		DM8	
50		09/09/2015	<b>Review of Unit-3</b>		DM8	
		<b>UNIT-IV</b>				
51		10/09/2015	Introduction to Design Engineering		DM1	
52		11/09/2015	Design process and design concepts		DM1,DM8	
53		12/09/2015	Design models		DM1,DM8	
54	WEEK12	14/09/2015	Design Models		DM1,DM8	
55		16/09/2015	Pattern based software design		DM1	
56		17/09/2015	Creating an architectural design		DM1	
57		18/09/2015	Software architecture		DM1,DM8	
58		19/09/2015	Data design		DM1,DM8	
59	WEEK13	21/09/2015	Architectural styles and patterns		DM1,DM8	
60		23/09/2015	Architectural design		DM1,DM8	
61		25/10/2015	<b>Tutorial-6</b>		DM2	
62		26/10/2015	<b>Review of Unit-4</b>		DM1,DM8	



UNIT-V					
63	WEEK14	28/10/2015	Introduction to testing strategies		DM1
64		30/10/2015	Strategic issues for software testing		DM1
65		01/10/2015	Test strategies for conventional software		DM1,DM8
66		03/10/2015	Object oriented software		DM1,DM8
67	WEEK15	05/10/2015	Validation testing		DM1,DM8
68		07/10/2015	System testing, Debugging		DM1,DM8
69		08/10/2015	<b>Tutorial-7</b>		DM2
70		09/10/2015	Software testing fundamentals		DM1
71		10/10/2015	White box testing		DM1
72		12/10/2015	Black box testing		DM8
73	WEEK16	14/10/2015	Basis path testing		DM8
74		15/10/2015	OO Testing Methods		DM8
75		16/10/2015	OO Testing Methods		DM8
76		17/10/2015	<b>Review of Unit-5</b>		DM8

**NOTE: DELIVERY METHODS:** **DM1:** Lecture interspersed with discussions/BB, **DM2:** Tutorial, **DM3:** Lecture with a quiz, **DM4:** Assignment/Test, **DM5:** Demonstration ( laboratory, field visit ), **DM6:** Group Discussion, **DM7:** Group Assignment/ Project, **DM8:** Presentations/PPT, **DM9:**Asynchronous Discussion..

Signature			
	<b>Name of the Faculty</b>	<b>Name of Course Co-ordinator</b>	<b>HOD</b>

**Signature of the Faculty  
of the Department**

**Head**

## T254 – MICROPROCESSORS AND INTERFACING

<b>Lecture</b>	<b>: 4 Periods/week</b>	<b>Internal Marks</b>	<b>: 25</b>
<b>Tutorial</b>	<b>: 1 Period/Week</b>	<b>External Marks</b>	<b>: 75</b>
<b>Credits</b>	<b>: 4</b>	<b>External Examination</b>	<b>: 3 Hrs</b>

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### LESSON PLAN-MICROPROCESSORS AND INTERFACING

<b>S No.</b>	<b>Tentative Date</b>	<b>Topics to be covered</b>	<b>Actual Date</b>	<b>Num. of classes</b>	<b>Content Delivery Methods</b>
<b>UNIT – I</b>					
1.	24-06-15	Architecture of 8086 Microprocessor		1	DM4
2.	26-06-15	Special functions of General purpose registers		1	DM1,DM2
3.	27-06-15	8086 flag register and function of 8086 Flags		1	DM1
4.	29-06-15	Addressing modes of 8086,		2	DM1, DM4
5.	01-07-15	Instruction set of 8086.		3	DM1
6.	03-07-15	<b>Tutorial-I</b>			DM2
7.	06-07-15	Assembler directives, simple programs, procedures, and macros		2	DM1,DM2
8.	08-07-15	Assembly language programs involving logical, Branch & Call instructions,		3	DM1,DM4
9.	09-07-15	Sorting, evaluation of arithmetic expressions, string manipulation.		2	DM1

10.	10-07-15	<b>Tutorial-II</b>			DM2
<b>UNIT – II</b>					
11.	11-07-15	Pin diagram of 8086		2	DM1
12.	15-07-15	Minimum mode and maximum mode of operation,		2	DM1,DM4
13.	17-07-15	<b>Tutorial-III</b>			DM2
14.	20-07-15	Timing diagram, Memory interfacing to 8086 (Static RAM & EPROM)		3	DM1,DM4
15.	24-07-15	Need for DMA. DMA data transfer Method,		3	DM1,DM4
16.	26-07-15	<b>Tutorial-IV</b>			DM2
17.	29-07-15	Interfacing with 8237/8257.		2	DM1,DM4
<b>UNIT – III</b>					
18.	31-07-15	8255 PPI – various modes of operation and interfacing to 8086		2	DM1,DM4
19.	03-08-15	Interfacing Keyboard		2	DM1
20.	04-08-15	<b>Tutorial-V</b>			DM2
21.	05-08-15	Displays		2	DM1,DM4
22.	07-08-15	8279		2	DM1
23.	10-08-2015 to 16-08-2015	<b>I-Mid Examinations</b>			
24.	18-08-15	Stepper Motor and actuators		2	DM1,DM4
25.	19-08-15	<b>Tutorial-VI</b>			DM2
26.	20-08-15	D/A and A/D converter interfacing		2	DM1,DM4
<b>UNIT-IV</b>					

27.	22-08-15	Interrupt structure of 8086.		1	DM1
28.	24-08-15	Vector interrupt table. Interrupt service routines		2	DM1
29.	27-08-2015	Introduction to DOS and BIOS interrupts		2	DM1
30.	29-08-15	8259 PIC Architecture and interfacing cascading of interrupt controller and its importance,		3	DM1
31.	30-08-15	<b>Tutorial-VII</b>			DM2
32.	03-09-15	Serial data transfer schemes. Asynchronous and Synchronous data transfer schemes		2	DM1
33.	07-09-15	8251 USART architecture and interfacing,		2	DM1
34.	09-09-15	TTL to RS 232C and RS232C to TTL conversion		2	DM1
35.	11-09-15	Sample program of serial data transfer,		2	DM1
36.	14-09-15	Introduction to High-speed serial communications standards, USB.		2	DM1
37.	15-09-15	<b>Tutorial-VIII</b>			DM2
<b>UNIT-V</b>					
38.	16-09-15	Introduction to 80286, Salient features of 80386		2	DM1
39.	18-09-15	Real and Protected mode		5	DM1
40.	26-09-15	Segmentation & Paging, Salient Features of Pentium		3	DM1
41.	1-10-15	Branch Prediction		2	DM1
42.	3-10-15	<b>Tutorial-IX</b>			DM2
43.	5-10-15	8051 Microcontroller Architecture,		2	DM1
44.	07-10-15	Register set of 8051, Modes of timer operation,		2	DM1

45.	10-10-15	Serial port operation		3	DM1
46.	15-10-15	Interrupt structure of 8051		1	DM1
47.	16-10-15	Memory and I/O interfacing of 8051.		2	DM1
48.	17-10-15	<b>Tutorial-X</b>			DM2
		<b>Total</b>		81	
<b>Total number of classes required to complete the syllabus</b>					<b>69</b>
<b>Total number of classes available as per Schedule</b>					<b>81</b>

**NOTE: DELIVERY METHODS :** **DM1:** Lecture interspersed with discussions/BB, **DM2:** Tutorial, **DM3:** Assignment/Test, **DM4:** Presentations/PPT

At the End of the course, students will attain the **Course Outcomes:CO1,CO2,CO3,CO4** & sample proofs are enclosed in Course file.

Signature			
	Course Co-coordinator	Instructor	HOD



## LESSON PLAN

**Course Code & Course Name:** T862 – OPERATING SYSTEMS LAB  
**Programme:** B.Tech

**SEM:** V  
**Department:** IT

S No.	Date	Topics to be covered	Hrs	Batch	Remarks
1.	23/06/2015	Practice programs on C	3	A,B	
2.	25/06/2015	Simulate Round Robin Scheduling	3	A,B	
3.	30/06/2015	Simulate FCFS	3	A	
4.	02/07/2015	Simulate FCFS	3	B	
5.	07/07/2015	Simulate SJF, Priority	3	A	
6.	09/07/2015	Simulate SJF, Priority	3	B	
7.	14/07/2015	Simulate Sequential File Allocation	3	A	
8.	16/07/2015	Simulate Sequential File Allocation	3	B	
9.	21/07/2015	Simulate Linked File Allocation	3	A	
10.	23/07/2015	Simulate Linked File Allocation	3	B	
11.	28/07/2015	Simulate Indexed File Allocation	3	A	
12.	30/07/2015	Simulate Indexed File Allocation	3	B	
13.	04/08/2015	Simulate MVT and MFT (Batch A)	3	A	
14.	06/08/2015	Simulate MVT and MFT	3	B	
<b>MID – I EXAMS 10-08-2015 To 17-08-2015</b>					
15.	18/08/2015	Simulate File Organization Techniques – Single Level and Two Level	3	A	
16.	20/08/2015	Simulate File Organization Techniques – Single Level and Two Level	3	B	
17.	25/08/2015	Simulate File Organization Techniques- Hierarchical and DAG	3	A	
18.	27/08/2015	Simulate File Organization Techniques- Hierarchical and DAG	3	B	
19.	01/09/2015	Simulate Banker's Algorithm for Dead Lock Avoidance	3	A	
20.	03/09/2015	Simulate Banker's Algorithm for Dead Lock Avoidance	3	B	
21.	08/09/2015	Simulate Banker's Algorithm for Dead Lock Prevention	3	A	
22.	10/09/2015	Simulate Banker's Algorithm for Dead Lock Prevention	3	B	
23.	15/09/2015	Simulate Page Replacement Algorithms	3	A	

24.	22/09/2015	Simulate Page Replacement Algorithms	3	B	
25.	29/09/2015	Simulate Paging Technique of Memory Management	3	A	
26.	01/10/2015	Simulate Paging Technique of Memory Management	3	B	
27.	06/10/2015	Practice Pending Experiments (or) Revision	3	A	
28.	08/10/2015	Practice Pending Experiments (or) Revision	3	B	
29.	13/10/2015	INTERNAL LAB EXAM	3	A	
30.	15/10/2015	INTERNAL LAB EXAM	3	B	
<b>MID – II EXAMS 26-10-2015 To 31-10-2015</b>					

**TEXT BOOK :**

1. Silberschatz & Galvin, 'OPERATING SYSTEM CONCEPTS', 7th edition, Wiley.

**REFERENCES :**

1. William Stallings-"OPERATING SYSTEMS"-5th Edition-PHI
2. Charles Crowley, 'OPERATING SYSTEMS: A DESIGN-ORIENTED APPROACH', Tata McGraw Hill Co.,1998 edition
3. Andrew S.Tanenbaum, 'MODERN OPERATING SYSTEMS', 2nd edition, 1995, PHI.

<b>Signature</b>			
	<b>Name of the Faculty</b>	<b>Name of Course Co-ordinator</b>	<b>HOD</b>
	Michael Sadgun Rao Kona	Koneru Anu Priya	Dr. D. Naga Raju



**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING**  
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Faculty Name: K.V.ASHOK,R.HARI KISHAN

**LAB SCHEDULE**

Date: 22-06-2015.

Year: B.Tech - V SEM MICROPROCESSORS & INTERFACING

IT

S.NO.	UNIT	DESCRIPTION	II Batch(TUE )		I Batch(THU)		Signature
			Planned	Performed	Planned	Performed	
1.		Introduction to 8086 Kits & Debug	23/06/15		25/06/15		
2.		Programs on Data Transfer & Exchange	30/06/15		02/07/15		
3.		Programs on ADD,ADC,SUB	7/7/15		09/07/15		
4.		Programs on MUL & DIV	21/07/15		23/07/15		
5.		Programs on code Conversion	04/08/15		06/08/15		
6.		Programs on Sorting	18/08/15		20/08/15		
7.		Programs on String	25/08/15		27/08/15		
8.		Programs on Subroutines, MASM	01/09/15		03/09/15		
9.		DAC Interfacing- Generation of Waveforms	08/09/15		10/09/15		
10.	Cycle	ADC Interfacing	15/09/15		17/09/15		
11.	Cycle	Stepper Motor Interfacing	22/09/15		24/09/15		
12.	Cycle	Key Board Interfacing	29/09/15		1/10/15		
13.	Cycle	Display Interfacing	06/10/15		08/10/15		
14.	Cycle	8051 Program- Program & IO	13/10/15		13/10/15		
15.	Cycle	INTERNAL EXAM	15/10/15		15/10/15		

Signature of the Faculty  
HEAD OF THE DEPARTMENT, IT

Faculty Name: K.V.ASHOK,R.HARI KISHAN





**Lakireddy Bali Reddy College of Engineering**  
(Autonomous)

Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi  
NAAC Accredited with "A" grade, Accredited by NBA, New Delhi &  
Certified by ISO 9001:2008

**DEPARTMENT OF INFORMATION TECHNOLOGY**

Subject: Design And Analysis Of Algorithms Lab

Course: B.TECH V SEM

Lab Code: P818

Credits: 2

Faculty: Mahesh Kumar.M, K.Purushottam

Academic Year: 2014-15

**Notification Of cycles and schedules for conduction**

S.No	CYCLE	DATE	List Of Programmes	SIGN
1	Cycle-1		To write a program and analyze Time Complexity and Space Complexity of MergeSort	
2			To write a program and analyze Time Complexity and Space Complexity of BinarySearch	
3	Cycle-2		To write a program and analyze Time Complexity and Space Complexity of Knapsack Problem	
4			To write a program and analyze Time Complexity and Space Complexity of Kruskal's Algorithm	
5			To write a program and analyze Time Complexity and Space Complexity of Prim;s Algorithm	
6	Cycle-3		To write a program and analyze Time Complexity and Space Complexity of All Pair Shortest path	
7			To write a program and analyze Time Complexity and Space Complexity of Travelling Sales Person Problem	
8	Cycle-4		To write a program and analyze Time Complexity and Space Complexity of Graph coloring	
9			To write a program and analyze Time Complexity and Space Complexity of 8Queen Problem	
10	Cycle-5		To write a program and analyze Time Complexity and Space Complexity of NP-Graph hard Problem	
11			To write a program and analyze Time Complexity and Space Complexity of finding the maximum and minimum	

	LabWork Beyond Curriculum		element using Divide and Conquer Strategy	
12			Write a program to implement Dijkstra's Algorithm	
13	Practise Session		Practise Lab Cycles	
14	Exam		Internal Lab Examination	

Faculty Names: Mahesh.M, Purushottam.K

**Head of the Department**