



LESSON PLAN

Department: CSE

Course : Object Oriented Programming Through C++ Lab(**L167**)

SEM: III

Program: B.Tech

Academic Year : 2017-18

1. Pre-requisites: C-Programming Language
2. Course Educational Objectives (CEOs)

This course enables the students to execute programs in Object Oriented concepts, C++ language, Classes & Objects, Inheritance, Polymorphism, Templates, Streams, Files

3. Course Outcomes (COs):

After completion of this lab, students will be able to:

CO1: Implement and test the concepts of Classes & Objects, friend functions, constructors & destructors in program design of a few example exercises.

CO2: Design & implement a few forms of inheritance & test the performance of Polymorphism and Generic Programming through a few exercises.

CO3: : Design & implement Templates, Streams, Files

4. Course Articulation Matrix:

Course Code	COs	Programme Outcomes												PSOs		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
T167	CO1	1		2										3		
	CO2	1		2										3		
	CO3	1		2										3		
1 = Slight (Low)		2 = Moderate (Medium)						3-Substantial(High)								

4. Course Delivery Plan:

Cycle S.No.	Topics to be covered (Week wise)	No. of Classes		Date	DM
		As per the Schedule	Taken		
CYCLE-1					
1	1) Write a C++ program to find the sum of individual digits of a positive integer. 2) Write a C++ program to generate the first 'n' terms of the sequence. A Fibonacci sequence is defined as follows: the first and second terms in the sequence are 0 and 1. Subsequent terms are formed by adding the preceding two terms in the sequence.	3			DM5 &6
2	3) Write a C++ program to generate all the prime numbers between 1 and n. Where 'n' is a value supplied by the user. 4) Write a C++ programs that use both recursive and non-recursive functions a) To find the factorial of a given integer. b) To find the GCD of two given integers. c) To find the n th Fibonacci number.	3			DM5 &6
3	5) Write a C++ program to perform addition, subtraction and multiplication operations on two complex numbers using classes and objects.	3			DM5 &6
4	6) Write a C++ program to find out the total and average marks of 10 students using Classes and objects?	3			DM5 &6
5	7) Write a C++ program to implement static data members and static member functions 10) Write a C++ program that illustrates the following: a) Friend Function b) inline function	3			DM5 &6

6	<p>8) Write a C++ program to implement the matrix ADT using a class. The operations Supported by this ADT are:</p> <p>a) Reading a matrix.</p> <p>b) Addition of matrices.</p> <p>c) Displaying a matrix</p> <p>d) Multiplication of matrices.</p>	3			DM5 &6
7	<p>9)Write a C++ program to illustrate the usage of following: Default Constructor, Parameterized Constructor, Copy Constructor and Destructor</p>	3			DM5 &6
CYCLE-II					
8	<p>11) Write C++ programs that illustrates the usage of following forms of inheritance. (Exercise the access specified <i>protected</i> also)</p> <p>a) Single Inheritance</p> <p>b) Multiple Inheritance</p> <p>c) Multi level Inheritance</p> <p>d) Hierarchical Inheritance</p>	3			DM5 &6
9	<p>12) Write a C++ program to count the lines, words and characters in a given text using standard library string object.</p>	3			DM5 &6
11	<p>13) Write a C++ program that illustrates the concept of Function over loading?</p> <p>14) Write a C++ program that overloads the binary + operator to concatenate two strings and to add two complex numbers.</p> <p>15)Write a C++ program that overloads the unary ++ operator to increment each element of the given one dimensional array by '1'?</p>	3			DM5 &6


12	16) Write a C++ program that illustrates run time polymorphism by using virtual functions.	3			DM5 &6
13	17) Write a template based C++ program to implement Stack ADT . 18) Write a template based C++ program to implement Queue ADT	3			DM5 &6
14	19) Write a C++ program to display the contents of a text file.	3			DM5 &6
15	20) Write a C++ program which copies the contents of one file to another.	3			DM5 &6
16	<i>Revision / Practice</i>	3			
17	<i>Revision</i>	3			
18	<i>Revision</i>	3			
19	<i>Lab Internal Exam</i>	3			

Delivery Methods (DM):

1. Chalk & Talk
2. ICT Tools
3. Tutorial
4. Assignment/Test/Quiz
5. Laboratory/Field Visit
6. Web based learning.

	Course Instructor	Course Coordinator	Module Coordinator	HOD
Signature				
Name of the Faculty	A.RAJAGOPAL			

PRINCIPAL

	LESSON PLAN	
	Department: CSE Course : Object Oriented Programming Through C++(S324) SEM: III	Program: B.Tech Academic Year : 2017-18

1. Pre-requisites: C-Programming Language

2. Course Educational Objectives (CEOs):

This course enables the students to know about Object Oriented concepts, C++ language, Classes & Objects, Inheritance, Polymorphism. Templates , Streams, Files

3. Course Outcomes (COs): At the end of the course, the student will be able to :

CO1: Analyze the drawbacks of Procedure Oriented Programming comparing with the concepts of Object Oriented Programming paradigm & C++ language features in program design.

CO2: Identify and analyze the role of Classes & Objects, constructors & destructors in program design.

CO3: Design & implement various forms of inheritance and analyze how base class constructors are called.

CO4: Evaluate operator overloading, runtime polymorphism and Generic Programming through examples.

CO5: Explore various Stream classes, I/O operations and exception handling in handling file operations.

4. Course Articulation Matrix:

Course Code	COs	Programme Outcomes												PSOs		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
T324	CO1	2												3		1
	CO2	2												3		1
	CO3	2												3		1
	CO4	2												3		1
	CO5	2												3		1
1 = Slight (Low)		2 = Moderate (Medium)						3-Substantial(High)								

4. Course Delivery Plan:

S.NO	TOPIC TO BE COVERED	No.of Classes		Date	DM
		As per the Schedule	Taken		
UNIT-I: Overview of C++:					
1.	OOP Paradigm	1			DM1
2.	Data Abstraction / Control Abstraction, OOPS principles	1			DM1
3.	OOPS principles	1			DM1
4.	Origin of C++ & Characteristics	1			DM1
5.	Sample C++ Programs	1			DM6
6.	Types, operators, type casting, C++ keywords	1			DM6
7.	<i>new</i> and <i>delete</i> operators, General form of C++ program	1			DM1
8.	Dynamic initialization of variables	1			DM6
9.	Difference between class and structure, declaration of variables	1			DM2
10.	Tutorial-1	1			DM2
UNIT-II: Classes and Objects:					
11.	Defining Classes in C++, accessing class members,	1			DM1
12.	Access specifies(Public and Private),defining member functions,	1			DM6
13.	static data members, static member functions	1			DM1
14.	Friend functions, friend classes,	1			DM1
15.	Inline functions, nested classes	1			DM6
16.	object assignment	1			DM6
17.	passing objects to functions	1			DM1
18.	Returning objects	1			DM2
19.	Array of objects	1			DM6
20.	Constructor and Destructors	1			DM2
21.	Tutorial-2	1			DM2

22.					
23.					
24.	MID-I EXAMS				
25.					
26.					
UNIT – III: Inheritance:					
27.	Base class, derived class, access specifier (Protected),	1			DM6
28.	scope rules, base class	1			DM1
29.	virtual base class, single inheritance	1			DM2
30.	Inheriting Multiple Base classes-multiple inheritance, constructors, destructors,	1			DM6
31.	multilevel inheritance, multilevel inheritance	1			DM1
32.	multiple inheritance, multilevel inheritance examples.	1			DM1
33.	Hierarchical inheritance and hybrid inheritance, Passing parameters to base class constructors,	1			DM1
34.	calling base class constructors	1			DM1
35.	String class-Usage of standard library <i>string class</i> with example programs	1			DM1
36.	Usage of standard library string class	1			DM6
37.	String class examples	1			DM1
38.	Tutorial-3	1			DM2
UNIT-IV: Polymorphism					
39.	Polymorphism:	1			DM6
40.	Pointers, Pointers to objects	1			DM1
41.	'this' Pointer, Pointers to derived Classes.	1			DM6
42.	Concept of Polymorphism, Compile time Polymorphism:	1			DM1
43.	Operator Overloading	1			DM6
44.	Overloading Unary Operators,	1			DM6

45.	Overloading Binary Operators,.	1			
46.	Function Overloading Run time Polymorphism: Virtual functions,	1			DM6
47.	Pure Virtual Functions, Abstract classes	1			DM1
48.	GENERIC PROGRAMMING	1			DM6
49.	Templates: Introduction, Class Templates.	1			DM6
50.	Function Templates, simple generic classes	1			DM1
51.	Generic function, STL	1			DM1
52.	Lists,vectors	1			DM6
53.	Arrays	1			DM6
54.	Tutorial-4	1			DM2
Unit-V: Files & Exception Handling					
55.	Exception handling: Introduction	1			DM1
56.	Mechanism, try, throw and catch	1			DM1
57.	Catching all Exceptions, Multiple catches	1			DM6
58.	C++ I/O System Basics:C++ Streams,C++ StreamClasses	1			DM1
59.	Unformatted I/O Operations	1			DM2
60.	Formatted I/O Operations	1			DM6
61.	Formatted using manipulators	1			DM6
62.	C++ File I/O: Introduction, Classes for file stream operations,	1			DM6
63.	Opening and closing of a file	1			DM6
64.	Detecting end of file, Programs on files	1			DM6
65.	Tutorial-5	1			DM2
66.	Revision	1			
67.					
68.					
69.	MID-II EXAMS				


70.				
71.				

Delivery Methods (DM):

- 1.Chalk & Talk 2. ICT Tools 3. Tutorial 4. Assignment/Test/Quiz
5. Laboratory/Field Visit 6. Web based learning.

	Course Instructor	Course Coordinator	Module Coordinator	HOD
Signature				
Name of the Faculty	A.RAJAGOPAL			

PRINCIPAL

	LESSON PLAN	
	Department: CSE Course: – DISCRETE MATHEMATICAL STRUCTURES (S197) SEM: III	Program: B.Tech Academic Year: 2017-18

1. Pre-requisites: Basic Algebra

2. Course Educational Objectives (CEOs):

Acquaintance with the basic mathematical implication for computer science, acquiring the relevance of statements, inferences, predicates and Focuses on sets, relations and functions and their operations, Exposure of graphs, their representation, types, trees and tree variants in computer science.

3. Course Outcomes (COs): At the end of the course, the student will be able to:

CO1: Illustrate the basic concepts of mathematical logic and predicate calculus

CO2: Analyze the sets, relations and functions concepts

CO3: Analyze the importance of Graph Theory and its real time applications.

CO4: Apply the concepts of Algebraic Structures, Pigeon Hole Principle and its real time applications.

CO5: Construct recurrence relations and generating functions.

4. Course Articulation Matrix:

Course Code	COs	Programme Outcomes												PSOs		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
S197	CO1	3	3													
	CO2	3	3	1	2											
	CO3	3	3	1	2											
	CO4	3	3	2	1										1	
	CO5	3	3	1												
<p style="text-align: center;">1 = Slight (Low) 2 = Moderate (Medium) 3-Substantial(High)</p>																

5. Course Delivery Plan:

S.NO	TOPIC TO BE COVERED	No.of Classes		Date	DM
		As per the Schedule	Taken		
Unit-1					
1	Mathematical logic: Propositional Calculus,	2			1
2	Connectives, Truth Tables	1			1
3	Tautologies, Equivalence of Formulas Duality law	2			1
4	Tautological Implications	2			1
5	Normal Forms	3			1
6	Theory of Inference for Statement Calculus	2			1
7	Consistency of Premises Indirect Method of Proof	2			1
8	Predicate calculus: Predicative Logic	2			1
9	Test-1	1			4
10	Statement Functions, Variables and Quantifiers Free	2			1
11	Inference theory for predicate calculus	1			1
12	Test-2	1			4
Number of classes		21			
Unit-II					
13	Set Theory: Introduction, Operations on Binary Sets	2			1
14	Principle of Inclusion and Exclusion	1			1
15	Relations: Properties of Binary Relations	2			1
16	Relation Matrix and Digraph Operations on Relations	1			1
17	Partition and Covering, Transitive Closure	1			1
18	Equivalence Relation	1			1
19	Compatibility Relation	1			1
20	Test-3	1			4
21	Partial Ordering Relation & Hasse Diagrams	1			1
22	Functions: Bijective Functions	1			1
23	Composition of Functions, Inverse Functions	1			1
24	Permutation Functions, Recursive Functions	2			1
25	Test-4	1			4

Number of classes		16			
UNIT-III					
26	Basic Concepts of Graphs, Sub graphs	1			1
27	Matrix Representation of Graphs	1			1
28	Adjacency Matrices, Incidence Matrices	1			1
29	Isomorphic Graphs, Paths and Circuits	2			1
30	Eulerian Graphs, Hamiltonian Graphs	2			1
31	Multigraphs, Planar Graphs, Euler's Formula	1			1
32	Test-5	1			4
33	Graph Colouring and Covering, Chromatic Number	1			1
34	Trees, Directed trees	1			1
35	Binary Trees, Decision Trees	1			1
36	Spanning Trees: Properties	1			1
37	Algorithms for Spanning trees and Minimum Spanning Trees	2			1
38	Test-6	1			4
Number of classes		16			
UNIT-IV					
39	Algebraic Systems with one Binary Operation	1			1
40	Properties of Binary operations, Semi groups and Monoids	1			1
41	Homomorphism of Semi groups and Monoids, Groups	1			1
42	Abelian Group, Cosets, Subgroups	1			1
43	Lattice: Properties, Algebraic Systems with two Binary Operations: Rings	2			1
44	Test-7	1			4
45	Basic of Counting, Permutations, Derangements	2			1
46	Permutations with Repetition of Objects	1			1
47	Circular Permutations, Restricted Permutations	1			1
48	Combinations, Restricted Combinations	1			1
49	Pigeonhole Principle and its Application	1			1
50	Test-8	1			4
Number of classes		14			
UNIT-V					

51	Binomial Theorem, Binomial and Multinomial Coefficients	1			1
52	Generating Functions of Permutations and Combinations	2			1
53	The Principles of Inclusion – Exclusion	1			1
54	Generating Function of Sequences, Partial Fractions	1			1
55	Calculating Coefficient of Generating Functions	2			1
56	Test-9	1			4
57	Recurrence Relations, Formulation as Recurrence Relations	1			1
58	Solving linear homogeneous recurrence Relations by substitution	2			1
59	Generating functions and The Method of Characteristic Roots	1			1
60	Solving Inhomogeneous Recurrence Relations	1			1
61	Test-10	1			4
Number of classes		15			

Content beyond the syllabus:					
62	Rules of Inference and Automatic Theorem Proving	2			1
63	DFS algorithm	1			1
64	BFS algorithm	1			1
65	Polish theorem	1			1
Total Number of classes					

Delivery Methods (DM):

1.Chalk & Talk 2. ICT Tools 3. Tutorial 4. Assignment/Test/Quiz

5. Laboratory/Field Visit 6. Web based learning.

	Course Instructor	Course Coordinator	Module Coordinator	HOD
Signature				
Name of the Faculty				

PRINCIPAL

LAKKIREDDY BALI REDDY COLLEGE OF ENGINEERING

COURSE HANDOUT

PROGRAM : B.Tech., III-Sem., CSE-A
 ACADEMIC YEAR : 2017-18
 COURSE NAME & CODE : Environmental Studies - S 243
 L-T-P STRUCTURE : 2-0-0
 COURSE CREDITS : 0
 COURSE INSTRUCTOR : V.Bhagya Lakshmi, Assistant Professor
 COURSE COORDINATOR : Dr.Shaheda Niloufer, Sr. Assistant Professor

COURSE OBJECTIVE: To provide a general background on developing an understanding of systems and cycles on the earth and how individual organisms live together in complex communities.

To enable the students in understanding how human activities influence our air, water and soil and it also helps in developing a right attitude about our use of fossil fuels and effect on climate and sustainable management of natural resources.

COURSE ARTICULATION MATRIX(Correlation between COs&POs,PSOs):

CO	Statement	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PSO	PSO	PSO
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
1	Evaluate local, regional and global environmental issues related to resources and their sustainable management	2	2	2									2			
2	Realize the importance of ecosystem and biodiversity for maintaining ecological balance	2	2	2									2			
3	Identify environmental problems arising due to engineering and technological activities that help to be the part of sustainable solutions	2	2	3			3	3					2			
4	Create awareness on sustainable population growth and know the contributions of Information Technology in environmental management	2	2	3			3						2			

Note: Enter Correlation Levels 1 or 2 or 3. If there is no correlation, put '-'
 1- Slight(Low), 2 - Moderate(Medium), 3 - Substantial (High).

BOS APPROVED TEXT BOOKS:

- 1 P.N.Palanisamy et al., "Environmental Science" 2nd edition, Dorling Kindersley publishers.
- 2 R. Rajagopalan, "Environmental Studies (From Crisis to Cure)", Oxford University

Press.

BOS APPROVED REFERENCE BOOKS:

- 1 M. Anji Reddy, "Textbook of Environmental Sciences and Technology" by BS Publications, 2011 Second Edition.
- 2 Erach Bharucha, "Textbook of Environmental Studies for Undergraduate Courses", by University Grants Commission, University Press (India) Private Limited, 2005.

COURSE DELIVERY PLAN (LESSON PLAN): Section-A

UNIT-I : Natural Resources

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Actual Date of Completion	Teaching Learning Methods	HOD Sign Weekly
1.	Introduction to syllabus, Def of Environmental studies, Scope & Importance of environmental studies. Need for public awareness.	1	22.06.17		TLM1	
2.	Natural Resource classification & Forest resources	1	24.06.17		TLM1	
3.	Water Resources	1	29.06.17		TLM1	
4.	Mineral Resources	1	1.07.17		TLM1	
5.	Food Resources	1	6.07.17		TLM1	
6.	TUTORIAL-1	1	8.06.17		TLM3	
7.	Energy Resources	1	13.07.17		TLM1	
No. of classes required to complete UNIT-I		7	No. of classes taken:			

UNIT-II : Ecosystems & Biodiversity and its conservation

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Actual Date of Completion	Teaching Learning Methods	HOD Sign Weekly
8.	Introduction to UNIT-II Structure and functions of ecosystems	1	15.07.17		TLM1	
9.	Ecological succession, Food chains and Food web, Ecological Pyramids	1	20.07.17		TLM1	
10.	Bio-geochemical cycles	1	22.07.17		TLM1 TLM2	
11.	TUTORIAL-2	1	27.07.17		TLM3	
12.	Biodiversity and levels of measuring biodiversity	1	29.07.17		TLM1	
13.	Bio-geographic classification of India, Values, Hot spots	1	3.08.17		TLM1 TLM2	
14.	Threats and conservation of biodiversity	1	5.08.17		TLM1	
No. of classes required to complete UNIT-II		7	No. of classes taken:			

UNIT-III : Environmental Pollution

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Actual Date of Completion	Teaching Learning Methods	HOD Sign Weekly
15.	Air pollution	1	17.08.17		TLM1	
16.	Water pollution	1	19.08.17		TLM1	
17.	Soil pollution & Noise pollution	1	24.08.17		TLM1	
18.	Radioactive pollution(Tutorial 3)	1	26.08.17		TLM1 TLM3	
19.	Solid waste management	1	31.08.17		TLM1	
20.	Disaster management	1	2.09.17		TLM1	
No. of classes required to complete UNIT-III		6	No. of classes taken:			

UNIT-IV : Social Issues and the Environment

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Actual Date of Completion	Teaching Learning Methods	HOD Sign Weekly
21.	From unsustainable to sustainable development	1	7.09.17		TLM1	
22.	Environmental and human health Resettlement and rehabilitation	1	9.09.17		TLM1	
23.	Climate change: Global warming & Acid rains	1	14.09.17		TLM1	
24.	Ozone depletion & Nuclear accidents and holocaust	1	16.09.17		TLM1	
25.	Consumerism and waste products	1	21.09.17		TLM1	
26.	Tutorial 4	1	23.09.17		TLM3	
No. of classes required to complete UNIT-IV		6	No. of classes taken:			

UNIT-V : Human Population and Environment

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Actual Date of Completion	Teaching Learning Methods	HOD Sign Weekly
27.	Population growth and variations among nations, population explosion	1	28.09.17		TLM1	
28.	Family welfare programs Women and child welfare programs	1	5.10.17		TLM1	
29.	Human rights and value education, HIV/AIDS (Tutorial 5)	1	7.10.17		TLM1 TLM3	
30.	Role of IT in Environmental management and human health	1	12.10.17		TLM1	
31.	Environmental Law	1	14.10.17		TLM1	
No. of classes required to complete UNIT-V		5	No. of classes taken:			

Contents beyond the Syllabus

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Actual Date of Completion	Teaching Learning Methods	HOD Sign Weekly
32.	Case studies on Environmental Pollution	1	14.10.17		TLM9	
33.						

Teaching Learning Methods

TLM1	Chalk and Talk	TLM4	Problem Solving	TLM7	Seminars or GD
TLM2	PPT	TLM5	Programming	TLM8	Lab Demo
TLM3	Tutorial	TLM6	Assignment or Quiz	TLM9	Case Study

ACADEMIC CALENDAR:

Description	From	To	Weeks
I Phase of Instructions-1	19-06-2017	05-08-2017	7 W
I Mid Examinations	07-08-2017	12-08-2017	1 W
II Phase of Instructions	16-08-2017	14-10-2017	9 W
II Mid Examinations	16-10-2017	21-10-2017	1 W
Preparation and Practicals	23-10-2017	02-11-2017	2 W
Semester End Examinations	03-11-2017	18-11-2017	2 W

EVALUATION PROCESS:

Evaluation Task	COs	Marks
Assignment/Quiz – 1	1	A1=5
Assignment/Quiz – 2	2	A2=5
I-Mid Examination	1,2	B1=20
Assignment/Quiz – 3	3	A3=5
Assignment/Quiz – 4	4	A4=5
Assignment/Quiz – 5	5	A5=5
II-Mid Examination	3,4,5	B2=20
Evaluation of Assignment/Quiz Marks: $A=(A1+A2+A3+A4+A5)/5$	1,2,3,4,5	A=5
Evaluation of Mid Marks: $B=75\% \text{ of Max}(B1,B2)+25\% \text{ of Min}(B1,B2)$	1,2,3,4,5	B=20
Cumulative Internal Examination : A+B	1,2,3,4,5	A+B=25
Semester End Examinations	1,2,3,4,5	C=75
Total Marks: A+B+C	1,2,3,4,5	100

V.Bhagya Lakshmi
Course Instructor

Dr. Shaheda Niloufer
Course Coordinator

Dr. Shaheda Niloufer
Module Coordinator

BOS Chairman&HOD

COURSE HANDOUT

PROGRAM : B.Tech., III-Sem., CSE-B
 ACADEMIC YEAR : 2017-18
 COURSE NAME & CODE : Environmental Studies - S 243
 L-T-P STRUCTURE : 2-0-0
 COURSE CREDITS : 0
 COURSE INSTRUCTOR : V.Bhagya Lakshmi, Assistant Professor
 COURSE COORDINATOR : Dr.Shaheda Niloufer, Sr. Assistant Professor

COURSE OBJECTIVE: To provide a general background on developing an understanding of systems and cycles on the earth and how individual organisms live together in complex communities.

To enable the students in understanding how human activities influence our air, water and soil and it also helps in developing a right attitude about our use of fossil fuels and effect on climate and sustainable management of natural resources.

COURSE ARTICULATION MATRIX(Correlation between COs&POs,PSOs):

CO	Statement At the end of the course, student will be able to	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PSO	PSO	PSO
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
1	Evaluate local, regional and global environmental issues related to resources and their sustainable management	2	2	2									2			
2	Realize the importance of ecosystem and biodiversity for maintaining ecological balance	2	2	2									2			
3	Identify environmental problems arising due to engineering and technological activities that help to be the part of sustainable solutions	2	2	3			3	3					2			
4	Create awareness on sustainable population growth and know the contributions of Information Technology in environmental management	2	2	3			3						2			

Note: Enter Correlation Levels 1 or 2 or 3. If there is no correlation, put '-'
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COURSE DELIVERY PLAN (LESSON PLAN): Section-A

UNIT-I : Natural Resources

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Actual Date of Completion	Teaching Learning Methods	HOD Sign Weekly
34.	Introduction to syllabus, Def of Environmental studies, Scope & Importance of environmental studies. Need for public awareness.	1	21.06.17		TLM1	
35.	Natural Resource classification & Forest resources	1	23.06.17		TLM1	
36.	Water Resources	1	28.06.17		TLM1	
37.	Mineral Resources	1	30.06.17		TLM1	
38.	Food Resources	1	5.07.17		TLM1	
39.	TUTORIAL-1	1	7.06.17		TLM3	
40.	Energy Resources	1	12.07.17		TLM1	
No. of classes required to complete UNIT-I		7	No. of classes taken:			

UNIT-II : Ecosystems & Biodiversity and its conservation

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Actual Date of Completion	Teaching Learning Methods	HOD Sign Weekly
41.	Introduction to UNIT-II Structure and functions of ecosystems	1	14.07.17		TLM1	
42.	Ecological succession, Food chains and Food web, Ecological Pyramids	1	19.07.17		TLM1	
43.	Bio-geochemical cycles	1	21.07.17		TLM1 TLM2	
44.	TUTORIAL-2	1	26.07.17		TLM3	
45.	Biodiversity and levels of measuring biodiversity	1	28.07.17		TLM1	
46.	Bio-geographic classification of India, Values, Hot spots	1	2.08.17		TLM1 TLM2	
47.	Threats and conservation of biodiversity	1	4.08.17		TLM1	
No. of classes required to complete UNIT-II		7	No. of classes taken:			

UNIT-III : Environmental Pollution

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Actual Date of Completion	Teaching Learning Methods	HOD Sign Weekly
48.	Air pollution	1	16.08.17		TLM1	
49.	Water pollution	1	18.08.17		TLM1	
50.	Soil pollution & Noise pollution	1	23.08.17		TLM1	
51.	Radioactive pollution(Tutorial 3)	1	30.08.17		TLM1 TLM3	
52.	Solid waste management	1	1.09.17		TLM1	
53.	Disaster management	1	6.09.17			
No. of classes required to complete UNIT-III		6	No. of classes taken:			

UNIT-IV : Social Issues and the Environment

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Actual Date of Completion	Teaching Learning Methods	HOD Sign Weekly
54.	From unsustainable to sustainable development	1	8.09.17		TLM1	
55.	Environmental and human health Resettlement and rehabilitation	1	13.09.17		TLM1	
56.	Climate change: Global warming & Acid rains	1	15.09.17		TLM1	
57.	Ozone depletion & Nuclear accidents and holocaust	1	20.09.17		TLM1	
58.	Consumerism and waste products	1	22.09.17		TLM1	
59.	Tutorial 4		27.09.17		TLM3	
No. of classes required to complete UNIT-IV		5	No. of classes taken:			

UNIT-V : Human Population and Environment

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Actual Date of Completion	Teaching Learning Methods	HOD Sign Weekly
60.	Population growth and variations among nations, population explosion	1	29.09.17		TLM1	
61.	Family welfare programs Women and child welfare programs	1	4.10.17		TLM1	
62.	Human rights and value education, HIV/AIDS (Tutorial 5)	1	6.10.17		TLM1 TLM3	
63.	Role of IT in Environmental management and human health	1	11.10.17		TLM1	
64.	Environmental Law	1	13.10.17		TLM1	
No. of classes required to complete UNIT-V		5	No. of classes taken:			

Contents beyond the Syllabus

S.No.	Topics to be covered	No. of Classes Required	Tentative Date of Completion	Actual Date of Completion	Teaching Learning Methods	HOD Sign Weekly
65.	Case studies on Environmental Pollution	1	13.10.17		TLM9	
66.						

Teaching Learning Methods

TLM1	Chalk and Talk	TLM4	Problem Solving	TLM7	Seminars or GD
TLM2	PPT	TLM5	Programming	TLM8	Lab Demo
TLM3	Tutorial	TLM6	Assignment or Quiz	TLM9	Case Study

ACADEMIC CALENDAR:

Description	From	To	Weeks
I Phase of Instructions-1	19-06-2017	05-08-2017	7 W
I Mid Examinations	07-08-2017	12-08-2017	1 W
II Phase of Instructions	16-08-2017	14-10-2017	9 W
II Mid Examinations	16-10-2017	21-10-2017	1 W
Preparation and Practicals	23-10-2017	02-11-2017	2 W
Semester End Examinations	03-11-2017	18-11-2017	2 W

EVALUATION PROCESS:

Evaluation Task	COs	Marks
Assignment/Quiz – 1	1	A1=5
Assignment/Quiz – 2	2	A2=5
I-Mid Examination	1,2	B1=20
Assignment/Quiz – 3	3	A3=5
Assignment/Quiz – 4	4	A4=5
Assignment/Quiz – 5	5	A5=5
II-Mid Examination	3,4,5	B2=20
Evaluation of Assignment/Quiz Marks: $A=(A1+A2+A3+A4+A5)/5$	1,2,3,4,5	A=5
Evaluation of Mid Marks: $B=75\% \text{ of Max}(B1,B2)+25\% \text{ of Min}(B1,B2)$	1,2,3,4,5	B=20
Cumulative Internal Examination : A+B	1,2,3,4,5	A+B=25
Semester End Examinations	1,2,3,4,5	C=75
Total Marks: A+B+C	1,2,3,4,5	100

V.Bhagya Lakshmi
Course Instructor

Dr. Shaheda Niloufer
Course Coordinator

Dr. Shaheda Niloufer
Module Coordinator

BOS Chairman&HOD



LESSON PLAN

Department: CSE
Course : -FOSS (S253)
SEM: III

Program: B.Tech II YEAR

Academic Year : 2017-18

4. Pre-requisites:

5. Course Educational Objectives (CEOs):

CEO should be a paragraph in two or three sentences only.

6. Course Outcomes (COs): At the end of the course, the student will be able to :

CO1 : Explore UNIX Ecosystem.

CO2 : Implement Shell scripting in UNIX Kernel.

CO3 : Design Scripts for Process Creation & Job Management and Apply Regular Expressions for Pattern Matching.

CO4 : Design AWK scripts for text processing

CO5 : Analyze Open Source Tools like R-Tool, Octave, SCI Lab and PHP.

4. Course Articulation Matrix:

Course Code	COs	Programme Outcomes												PSOs			
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
T170	CO1			1											3		
	CO2			1											3		
	CO3			1		2									3		
	CO4			1											3		
	CO5					2									3	1	
		1 = Slight (Low)			2 = Moderate (Medium)					3-Substantial(High)							

7. Course Delivery Plan:

S.NO	TOPIC TO BE COVERED	No. of Classes		Date	DM
		As per the Schedule	Taken		
Unit-1					
1	Concepts of Control Systems	2	2		1
2	Open Loop control systems	1	1		1,2
3	closed loop control systems	1	1		1,2,1
4	Different examples of control	2	2		1,2,3
5	Classification of control systems	1	1		
6	Feed-Back Characteristics	2	3		
7	Effects of feedback				
8	Mathematical models				
9	Differential equations				
10	Impulse Response				
11	Transfer Functions				
12	TUTORIAL-1				
13	Translational and Rotational mechanical systems				
14	TEST-1				
15	Standard test signals				
16	Time response of first order				
17	Characteristic Equation of Feedback control systems				
Number of classes					
Unit-II					
18	Concepts of Control Systems				
19	Open Loop control systems				
Number of classes					
And so on					
77	Content beyond the syllabus:				
78					
77					
Total Number of classes					

Delivery Methods (DM): 1.Chalk & Talk 2. ICT Tools 3. Tutorial 4. Assignment/Test/Quiz 5. Laboratory/Field Visit 6. Web based learning.

	Course Instructor	Course Coordinator	Module Coordinator	HOD
Signature				

PRINCIPAL



LESSON PLAN

Department: CSE
Course : –Computer Organization(**S169**)
SEM: III

Program: B.Tech

Academic Year : 2017-18

1. Pre-requisites: Digital Logic Design

2. Course Educational Objectives

CEOs):

CEO should be a paragraph in two or three sentences only.

3. Course Outcomes (COs): At the end of the course, the student will be able to :

CO1 : Able to understand register transfer, micro operations such as arithmetic logic and shift.

CO2 : Able to analyze the basic concepts and elements of a computer system.

CO3 : Able to learn how to design a CPU

CO4 : Able to perform arithmetic operations.

CO5 : Able to study memory and I/O management.

4. Course Articulation Matrix:

Course Code	COs	Programme Outcomes												PSOs		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
S169	CO1															
	CO2															
	CO3															
	CO4															
	CO5															
		1 = Slight (Low)				2 = Moderate (Medium)				3-Substantial(High)						

8. Course Delivery Plan:

S.NO	TOPIC TO BE COVERED	No.of Classes	Date	DM
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		As per the Schedule	Taken		
Unit-1					
1	Register Transfer and Micro Operations Introduction, Digital components	2	2	19-06-17 21-06-17	1
2	Register Transfer Language, Register Transfer	1	1	23-06-17	1,2
3	Bus & Memory transfers using Multiplexers	1	1	24-06-17	1,2
4	Three State Buffers	1	1	28-06-17	1,2
5	Arithmetic Micro Operations-Adder and subtractor	1	1	30-06-17	1,2
6	Incrementer & Arithmetic Circuit	1	1	1-07-17	1,2
7	Logic Microoperations, Shift micro operations	1	1	03-07-17	1,2
8	Basic Computer Organization and Design:Instruction Codes, Computer registers	2	2	05-07-17 07-07-17	1,2
9	Computer Instructions, Timing and Control	2	2	10-07-17	1,2
10	Memory reference Instructions	1	1	17-07-17	1,2
11	Input Output instructions , Interrupt	1	1	19-07-17	1,2
12	Tutorial-1	1	1	21-07-17	3
Number of classes		15	15		
Unit-II					
13	Micro Programmed Control Control Memory	1	1	22-07-17	1,2
14	Address Sequencing	1	1	24-07-17	1,2
15	Micro program example	1	1	26-07-17	1,2
16	Design of Control unit	1	1	28-07-17	1,2
17	hard wired control, Micro programmed control	1	1	29-07-17	1,2
18	Central Processing Unit STACK organization, Instruction formats	1	1	31-07-17	1,2
19	Addressing modes, DATA Transfer and Manipulation	1	1	2-8-17	1,2
20	Program control, Reduced Instruction Set computer	1	1	4-08-17	1,2
21	Tutorial-II	1	1	5-08-17	3
Number of classes		9	9		
Unit-III					

22	Pipelining and Vector Processing Introduction	1	1	16-08-17	1,2
23	Parallel Processing, Pipelining	1	1	18-08-17	1,2
24	Arithmetic Pipeline	1	1	19-08-17	1,2
25	Instruction Pipeline	1	1	21-08-17	1,2
26	Risc Pipeline, Vector Processing	1	1	23-08-17	1,2
27	Computer Arithmetic:Data Representation: Fixed Point Representation, Floating – Point Representation	1	1	25-08-17	1,2
28	Tutorial-III	1	1	28-08-17	3
29	Addition and Subtraction	1	1	30-08-17	1,2
30	Multiplication algorithm Booth's algorithm	1	1	01-09-17	1,2
31	Division Algorithms	1	1	02-09-17	1,2
32	Floating-point Arithmetic operations	1	1	04-09-17	1,2
33	Decimal Arithmetic unit	1	1	06-09-17	1,2
34	Decimal Arithmetic operations	1	1	08-09-17	1,2
35	Test-I	1	1	11-09-17	4
Number of classes		14	14		
Unit-IV					
36	Memory Organization: Introduction	1	1	13-09-17	1,2
37	Memory Hierarchy	1	1	15-09-17	1,2
38	Main Memory,	1	1	16-09-17	1,2
39	Auxiliary Memory	1	1	18-09-17	1,2
40	Associative memory	1	1	20-09-17	1,2
41	Cache Memory	1	1	22-09-17	1,2
42	Virtual Memory	1	1	23-09-17	1,2
43	Tutorial-IV	1	1	25-09-17	3
Number of classes		8	8		
Unit-V					
44	Input-Output Organization Introduction, Different types of devices	1	1	27-09-17	1,2
45	Different peripherals, Interfaces	1	1	29-09-17	1,2
46	Input-Output Interface	1	1	30-09-17	1,2
47	Asynchronous Data Transfer, 4X4 FIFO buffer	1	1	02-10-17	1,2
48	Modes Of Transfer, Priority Interrupt	1	1	04-10-17	1,2


49	Daisy chain interrupt	1	1	06-10-17	1,2
50	Input-Output Processor	1	1	07-10-17	1,2
51	Serial Communication	1	1	09-10-17	1,2
52	TUTORIAL-V	1	1	11-10-17	3
Number of classes		9	9		
53	Content beyond the syllabus:	1	1	13-10-17	1,2
Total Number of classes		56	56		

Delivery Methods (DM):

- 1.Chalk & Talk 2. ICT Tools 3. Tutorial 4. Assignment/Test/Quiz
5. Laboratory/Field Visit 6. Web based learning.

	Course Instructor	Course Coordinator	Module Coordinator	HOD
Signature				
Name of the Faculty	Dr.O.Rama Devi			

PRINCIPAL

	LESSON PLAN	
	Department: CSE Course : – Computer Organization (S169) SEM: III	Program: B.Tech Academic Year : 2017-18

1. Pre-requisites: Computer Organization

2. Course Educational Objectives (CEOs):

Students will be able to design logical expressions and corresponding integrated logic circuits for a variety of problems including the basic components of a CPU such as adders, multiplexers, the ALU, a register file, and memory cells.

Course Outcomes (COs): At the end of the course, the student will be able to :

CO1 : understand register transfer, micro operations such as arithmetic, logic and shift.

CO2 : analyze the basic concepts and elements of a computer system.

CO3 : learn how to design a CPU.

CO4 : perform arithmetic operations.

CO5 : memory and I/O management.

4. Course Articulation Matrix:

Course Code	COs	Programme Outcomes												PSOs			
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
T170	CO1	3															
	CO2		3														
	CO3			3									2		2		
	CO4	3													2		
	CO5	3															
1 = Slight (Low)		2 = Moderate (Medium)						3-Substantial(High)									

3. Course Delivery Plan:

S.NO	TOPIC TO BE COVERED	No.of Classes		Date	DM
		As per the Schedule	Taken		
Unit-1: Register Transfer and Micro Operations					
1	Register Transfer language	1	1	19/6/2017	1
2	Register Transfer	1	1	20/6/2017	1,2
3	Bus and Memory Transfers	1	1	20/6/2017	1,2
4	Arithmetic Micro Operations	1	1	22/6/2017	1,3
5	Logic Micro Operations,	1	1	22/6/2017	1,3
6	Shift Micro Operations	1	1	22/6/2017	1,3
7	Arithmetic Logic Shift Unit.	1	1	29/7/2017	1,2,4
8	Instruction Codes, Computer registers,	1	1	1/7/2017	1,2
9	Computer Instructions– Instruction cycle	1	1	3/7/2017	1,2
10	Memory – Reference Instructions	1	1	4/7/2017	1,2
11	Input – Output and Interrupt	1	1	6/7/2017	1,2
12	Hard Wired Control Unit-Design	1	1	7/7/2017	1,2,4
Number of classes		12	12	11	
Unit-II					
13	Micro Programmed Control: Control Memory	1	1	10/7/2017	1,3,4
14	Address Sequencing	1	1	10/7/2017	1,3,4
15	Micro program example	1	1	10/7/2017	1,2,3,4
16	Design of Control unit	1	1	11/7/2017	1,3,4
17	Hard wired control	1	1	13/7/2017	1,3,4
18	Micro programmed control.	1	1	17/7/2017	1,3,4
19	Central Processing Unit: STACK organization	1	1	18/7/2017	1,3,4
20	Instruction formats	1	1	19/7/2017	1,3,4
21	Addressing modes	1	1	20/7/2017	1,3,4
22	DATA Transfer and Manipulation	1	1	21/7/2017	1,3,4
23	Program control	1	1	24/7/2017	1,3,4
24	Reduced Instruction Set computer	1	1	27/7/2017	1,2,3,4
Number of classes		12	12		
Unit-III					
25	Parallel Processing, Pipelining	1	1	31/7/2017	1,3,4
26	Arithmetic Pipeline	1	1	3/8/2017	1,3,4
27	Instruction Pipeline	1	1	17/8/2017	1,3,4
28	RISC Pipeline,	1	1	18/8/2017	1,3,4

29	Vector processing	1	1	21/8/2017	1,3,4
30	Data Representation	1	1	21/8/2017	1,3,4
31	Fixed point & Floating point representation	1	1	22/8/2017	1,3,4
32	Addition & Subtraction	1	1	22/8/2017	1,3,4
33	Multiplication Algorithms	1	1	24/8/2017	1,3,4
34	Division Algorithms	1	1	29/8/2017	1,3,4
35	Floating- point Arithmetic operations	1	1	31/8/2017	1,3,4
36	Floating- point-multiplication	1	1	1/9/2017	1,3,4
37	Floating- point-division	1	1	4/9/2017	1,3,4
38	Decimal arithmetic Unit	1	1	5/9/2017	1,3,4
39	Decimal Arithmetic Operations	1	1	7/9/2017	1,3,4
40	Decimal Arithmetic- multiplication & division	1	1	8/9/2017	1,3,4
	Number of classes	16	16		
Unit-IV					
41	Memory Hierarchy,	1	1	11/9/2017	1,3,4
42	Main Memory	1	1	12/9/2017	1,3,4
43	Auxiliary Memory	1	1	18/9/2017	1,3,4
44	Associative Memory-I	1	1	19/9/2017	1,3,4
45	Associative Memory-II	1	1	21/9/2017	1,3,4
46	Cache Memory-I	1	1	22/9/2017	1,3,4
47	Cache Memory-II	1	1	25/9/2017	1,3,4
48	Virtual Memory	1	1	26/9/2017	1,3,4
49	Segmentation	1	1	3/10/2017	1,3,4
	Number of classes	9	9		
Unit-V					
50	Peripheral devices	1	1	4/10/2017	1,3,4
51	Input-output interfaces	1	1	5/10/2017	1,3,4
52	Asynchronous data transfer modes	1	1	9/10/2017	1,3,4
53	Asynchronous Serial transfer, Interrupt based I/O	1	1	10/10/2017	1,3,4
54	Interrupt & DMA based I/O	1	1	12/10/2017	1,3,4
55	DMA & Program based I/O	1	1	13/10/2017	1,3,4
	Number of classes	6	6		
	Total Number of classes	55	55		

Delivery Methods (DM):

- 1.Chalk & Talk
2. ICT Tools
3. Tutorial
4. Assignment/Test/Quiz
5. Laboratory/Field Visit
6. Web based learning.

	Course Instructor	Course Coordinator	Module Coordinator	HOD
Signature				

Name of the Faculty				
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PRINCIPAL



LESSON PLAN

Department: CSE

Course : Object Oriented Programming Through C++ Lab(**L167**)

SEM: III

Program: B.Tech

Academic Year : 2017-18

1. Pre-requisites: C-Programming Language

2. Course Educational Objectives (CEOs)

This course enables the students to execute programs in Object Oriented concepts, C++ language, Classes & Objects, Inheritance, Polymorphism, Templates, Streams, Files

3. Course Outcomes (COs):

After completion of this lab, students will be able to:

CO1: Implement and test the concepts of Classes & Objects, friend functions, constructors & destructors in program design of a few example exercises.

CO2: Design & implement a few forms of inheritance & test the performance of Polymorphism and Generic Programming through a few exercises.

CO3: : Design & implement Templates, Streams, Files

4. Course Articulation Matrix:

Course Code	COs	Programme Outcomes												PSOs		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
T167	CO1	1		2										3		
	CO2	1		2										3		
	CO3	1		2										3		
1 = Slight (Low)		2 = Moderate (Medium)						3-Substantial(High)								

4. Course Delivery Plan:

Cycle S.No.	Topics to be covered (Week wise)	No. of Classes		Date	DM
		As per the Schedule	Taken		
CYCLE-1					
1	<p>2) Write a C++ program to find the sum of individual digits of a positive integer.</p> <p>2) Write a C++ program to generate the first 'n' terms of the sequence. A Fibonacci sequence is defined as follows: the first and second terms in the sequence are 0 and 1. Subsequent terms are formed by adding the preceding two terms in the sequence.</p>	3			DM5 &6
2	<p>3) Write a C++ program to generate all the prime numbers between 1 and n. Where 'n' is a value supplied by the user.</p> <p>4) Write a C++ programs that use both recursive and non-recursive functions</p> <p>a) To find the factorial of a given integer.</p> <p>b) To find the GCD of two given integers.</p> <p>c) To find the nth Fibonacci number.</p>	3			DM5 &6
3	<p>5) Write a C++ program to perform addition, subtraction and multiplication operations on two complex numbers using classes and objects.</p>	3			DM5 &6
4	<p>6) Write a C++ program to find out the total and average marks of 10 students using Classes and objects?</p>	3			DM5 &6
5	<p>7) Write a C++ program to implement static data members and static member functions</p> <p>10) Write a C++ program that illustrates the following:</p> <p>a) Friend Function b) inline function</p>	3			DM5 &6

6	<p>8) Write a C++ program to implement the matrix ADT using a class. The operations Supported by this ADT are:</p> <p>a) Reading a matrix.</p> <p>b) Addition of matrices.</p> <p>c) Displaying a matrix</p> <p>d) Multiplication of matrices.</p>	3			DM5 &6
7	<p>9)Write a C++ program to illustrate the usage of following: Default Constructor, Parameterized Constructor, Copy Constructor and Destructor</p>	3			DM5 &6
CYCLE-II					
8	<p>11) Write C++ programs that illustrates the usage of following forms of inheritance. (Exercise the access specified <i>protected</i> also)</p> <p>a) Single Inheritance</p> <p>b) Multiple Inheritance</p> <p>c) Multi level Inheritance</p> <p>d) Hierarchical Inheritance</p>	3			DM5 &6
9	<p>12) Write a C++ program to count the lines, words and characters in a given text using standard library string object.</p>	3			DM5 &6
11	<p>13) Write a C++ program that illustrates the concept of Function over loading?</p> <p>14) Write a C++ program that overloads the binary + operator to concatenate two strings and to add two complex numbers.</p> <p>15)Write a C++ program that overloads the unary ++ operator to increment each element of the given one dimensional array by '1'?</p>	3			DM5 &6

12	16) Write a C++ program that illustrates run time polymorphism by using virtual functions.	3			DM5 &6
13	17) Write a template based C++ program to implement Stack ADT . 18) Write a template based C++ program to implement Queue ADT	3			DM5 &6
14	19) Write a C++ program to display the contents of a text file.	3			DM5 &6
15	20) Write a C++ program which copies the contents of one file to another.	3			DM5 &6
16	<i>Revision / Practice</i>	3			
17	<i>Revision</i>	3			
18	<i>Revision</i>	3			
19	<i>Lab Internal Exam</i>	3			

Delivery Methods (DM):

- 1.Chalk & Talk 2. ICT Tools 3. Tutorial 4. Assignment/Test/Quiz
5. Laboratory/Field Visit 6. Web based learning.

	Course Instructor	Course Coordinator	Module Coordinator	HOD
Signature				
Name of the Faculty	A.RAJAGOPAL			

PRINCIPAL



LESSON PLAN

Department: CSE

Course : Object Oriented Programming Through C++(**S324**)

SEM: III

Program: B.Tech

Academic Year : 2017-18

1. Pre-requisites: C-Programming Language

2. Course Educational Objectives (CEOs):

This course enables the students to know about Object Oriented concepts, C++ language, Classes & Objects, Inheritance, Polymorphism. Templates , Streams, Files

3. Course Outcomes (COs): At the end of the course, the student will be able to :

CO1: Analyze the drawbacks of Procedure Oriented Programming comparing with the concepts of Object Oriented Programming paradigm & C++ language features in program design.

CO2: Identify and analyze the role of Classes & Objects, constructors & destructors in program design.

CO3: Design & implement various forms of inheritance and analyze how base class constructors are called.

CO4: Evaluate operator overloading, runtime polymorphism and Generic Programming through examples.

CO5: Explore various Stream classes, I/O operations and exception handling in handling file operations.

4. Course Articulation Matrix:

Course Code	COs	Programme Outcomes												PSOs		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
T324	CO1	2												3		1
	CO2	2												3		1
	CO3	2												3		1
	CO4	2												3		1
	CO5	2												3		1
		1 = Slight (Low)				2 = Moderate (Medium)				3-Substantial(High)						

4. Course Delivery Plan:

S.NO	TOPIC TO BE COVERED	No.of Classes	Date	DM
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		As per the Schedule	Taken		
UNIT-I: Overview of C++:					
72.	OOP Paradigm	1			DM1
73.	Data Abstraction / Control Abstraction, OOPS principles	1			DM1
74.	OOPS principles	1			DM1
75.	Origin of C++ & Characteristics	1			DM1
76.	Sample C++ Programs	1			DM6
77.	Types, operators, type casting, C++ keywords	1			DM6
78.	<i>new</i> and <i>delete</i> operators, General form of C++ program	1			DM1
79.	Dynamic initialization of variables	1			DM6
80.	Difference between class and structure, declaration of variables	1			DM2
81.	Tutorial-1	1			DM2
UNIT-II: Classes and Objects:					
82.	Defining Classes in C++, accessing class members,	1			DM1
83.	Access specifier (Public and Private), defining member functions,	1			DM6
84.	static data members, static member functions	1			DM1
85.	Friend functions, friend classes,	1			DM1
86.	Inline functions, nested classes	1			DM6
87.	object assignment	1			DM6
88.	passing objects to functions	1			DM1
89.	Returning objects	1			DM2
90.	Array of objects	1			DM6
91.	Constructor and Destructors	1			DM2
92.	Tutorial-2	1			DM2
93.					

94.					
95.	MID-I EXAMS				
96.					
97.					
UNIT – III: Inheritance:					
98.	Base class, derived class, access specifier (Protected),	1			DM6
99.	scope rules, base class	1			DM1
100.	virtual base class, single inheritance	1			DM2
101.	Inheriting Multiple Base classes-multiple inheritance, constructors, destructors,	1			DM6
102.	multilevel inheritance, multilevel inheritance	1			DM1
103.	multiple inheritance, multilevel inheritance examples.	1			DM1
104.	Hierarchical inheritance and hybrid inheritance, Passing parameters to base class constructors,	1			DM1
105.	calling base class constructors	1			DM1
106.	String class-Usage of standard library <i>string class</i> with example programs	1			DM1
107.	Usage of standard library string class	1			DM6
108.	String class examples	1			DM1
109.	Tutorial-3	1			DM2
UNIT-IV: Polymorphism					
110.	Polymorphism:	1			DM6
111.	Pointers, Pointers to objects	1			DM1
112.	‘this’ Pointer, Pointers to derived Classes.	1			DM6
113.	Concept of Polymorphism, Compile time Polymorphism:	1			DM1
114.	Operator Overloading	1			DM6
115.	Overloading Unary Operators,	1			DM6
116.	Overloading Binary Operators,.	1			

117.	Function Overloading Run time Polymorphism: Virtual functions,	1			DM6
118.	Pure Virtual Functions, Abstract classes	1			DM1
119.	GENERIC PROGRAMMING	1			DM6
120.	Templates: Introduction, Class Templates.	1			DM6
121.	Function Templates, simple generic classes	1			DM1
122.	Generic function, STL	1			DM1
123.	Lists,vectors	1			DM6
124.	Arrays	1			DM6
125.	Tutorial-4	1			DM2
Unit-V: Files & Exception Handling					
126.	Exception handling: Introduction	1			DM1
127.	Mechanism, try, throw and catch	1			DM1
128.	Catching all Exceptions, Multiple catches	1			DM6
129.	C++ I/O System Basics:C++ Streams,C++ StreamClasses	1			DM1
130.	Unformatted I/O Operations	1			DM2
131.	Formatted I/O Operations	1			DM6
132.	Formatted using manipulators	1			DM6
133.	C++ File I/O: Introduction, Classes for file stream operations,	1			DM6
134.	Opening and closing of a file	1			DM6
135.	Detecting end of file, Programs on files	1			DM6
136.	Tutorial-5	1			DM2
137.	Revision	1			
138.					
139.					
140.	MID-II EXAMS				


141.				
142.				

Delivery Methods (DM):

- 1.Chalk & Talk 2. ICT Tools 3. Tutorial 4. Assignment/Test/Quiz
5. Laboratory/Field Visit 6. Web based learning.

	Course Instructor	Course Coordinator	Module Coordinator	HOD
Signature				
Name of the Faculty	A.RAJAGOPAL			

PRINCIPAL

LESSON PLAN	
	Department: CSE Course Name: S253 FREE OPEN SOURCE SOFTWARE SEM: III A-Section
	Programme: B.Tech Academic Year :2017-18

2012017-18

1. Pre-requisites: Knowledge of Operating Systems

2. Course Educational Objectives (CEOs):

To study the open source application in the field of pedagogy, to learn the efficiency of open source software in the orientation of information literacy and to know about the usage of model in information literacy orient.

3. Course Outcomes (COs): At the end of the course, the student will be able to:

CO1: Explore UNIX Ecosystem.

CO2: Implement Shell scripting in UNIX Kernel.

CO3: Design Scripts for Process Creation and Apply Regular Expressions for Pattern Matching.

CO4: Design AWK scripts for text processing.

CO5: Analyze free open source software development projects.

4. Course Articulation Matrix:

		1	2	3	4	5	6	7	8	9	10	11	12	PSO 1	PSO 2	PSO 3
	CO1	1	1	3											3	
	CO2	3	3			1								2	3	
	CO3	3	2											2	3	
	CO4	2	1	2										1	3	
	CO5	2	1	2										1	3	

3 Strong(100%)

2 Moderate(66%)

1 Agree(33%)

5. Course Delivery Plan:

S.No.	TOPIC TO BE COVERED	No. of Classes		Date	DM
		As per the Schedule	Taken		
UNIT-I: INTRODUCTION TO UNIX					
1.	UNIX Operating System	1			1
2.	Architecture of UNIX	1			1
3.	Features of UNIX	1			1
4.	UNIX commands	1			1
5.	UNIX commands	1			1
6.	UNIX commands	1			1
7.	UNIX commands	1			1
8.	UNIX file system hierarchy	1			1
9.	UNIX file system	1			1
10.	UNIX file system commands	1			1
11.	UNIX file system commands	1			1
12.	File attributes	1			1
13.	File permissions	1			1
14.	Assignment/Test	1			4
No. of Classes		14			



2012017-18

LESSON PLAN

Department: CSE
 Course Name: S253 FREE OPEN SOURCE SOFTWARE
 SEM: III A-Section

Programme: B.Tech
 Academic Year :2017-18

UNIT-II: INTRODUCTION TO SHELL					
15.	Shell introduction, Pattern matching	1			1
16.	Escaping sequence, Quoting, Redirection	1			1
17.	Pipe, Tee, command substitution	1			1
18.	Vi editor	1			1
19.	Shell variables,	1			1
20.	Shell script, read, exit statements	1			1
21.	Conditional statements	1			1
22.	Conditional statements	1			1
23.	Looping statements	1			1
24.	Sample shell scripts	1			1
25.	Assignment/Test	1			4
26.	Sample shell scripts	1			1
27.	Sample shell scripts	1			1
28.	Sample shell scripts	1			1
No. of Classes		14			
UNIT-III: PROCESS, FILTERS AND REGULAR EXPRESSIONS					
29.	Regular expressions-grep	1			1
30.	Sed	1			1
31.	Sed	1			1
32.	Filters – cut, paste, sort, uniq, tr	1			1
33.	Filters – pr, cmp, comm, diff, head, tail	1			1
34.	Regular expressions-egrep, fgrep	1			1
35.	Process basics ps	1			1
36.	process creation mechanism	1			1
37.	Process attributes	1			1
38.	signal running job controls	1			1
39.	at, batch, cron, and crontab	1			1
40.	Quiz/Assignment	1			4
41.	Assignment/Test	1			4
No. of Classes		13			
UNIT-IV: PROGRAMMING WITH AWK					
42.	Awk preliminaries	1			1
43.	Print & printf statements	1			1
44.	Numbering processing	1			1
45.	Variables, Built-in variables	1			1
46.	Expressions	1			1
47.	Comparisons and logical operators	1			1

48.	Begin and end sections	1			1
49.	Positional parameters	1			1
50.	Arrays	1			1
51.	Decision and looping statements	1			1
52.	Functions, awk programming	1			1
53.	awk programming	1			1
54.	Assignment/Test	1			4
No. of Classes		13			
UNIT-V					
55.	Introduction to R-tool	1			1
56.	R-tool	1			6
57.	Introduction to octava	1			6
58.	Introduction to SCI LAB	1			6
59.	Introduction to PHP	1			6
60.	Programming with R-tool	1			6
61.	Programming with PHP	1			6
62.	Assignment/Test	1			4
No. of Classes		08			
Content beyond the syllabus					
63.	Introduction to free open source tools	1			1
64.	Introduction to free open source tools	1			1
65.	Introduction to free open source tools	1			6
No. of Classes		03			
Total number of classes		65			

Delivery Methods (DM):

1. Chalk & Talk
2. ICT Tools
3. Tutorial
4. Assignment/Test/Quiz
5. Laboratory/Field Visit
6. Web based learning.

	Course Instructor	Course Coordinator	Module Coordinator	HOD
Signature				
Name of the Faculty				

PRINCIPAL



SCHEDULE OF EXPERIMENTNTS

CSE

L148 FREE OPEN SOURCE SOFTWARE LAB

Programme: B.Tech

SEM: III A Sec.

Academic Year: 2017-18

S No.	Tentative Date	Topics to be covered	Actual Date	Num. of classes	Content Delivery Methods
1.	23-06-2017	Introduction			
2.	30-06-2017	Week1 Session-1 a)Log into the system. b)Use vi editor to create a file called myfile.txt which contains some text. c)Correct typing errors during creation. d)Save the file. e)Logout of the system Session-2 a)Log into the system b)open the file created in session1 c)Add some text d)Change some text e)Delete some text f)Save the Changes g)Logout of the system. Week2 a)Log into the system b)Use the cat command to cre			5
3.	07-07-2017	a)Log into the system b)Use the cat command to create a file containing the following data. Call it mytable use tabs to separate the fields. 1425 Ravi 15.65 4320 Ramu 26.27 6830 Sita 36.15 1450 Raju 21.86 c)Use the cat command to display the file, mytable. d)Use the vi command to correct any errors in the file, mytable. e)Use the sort command to sort the file mytable according to the first field. Call the sorted file my table (same name). f)Print the file mytable. g)Use the cut and paste commands to swap fields 2 and 3 of mytable. Call it my table (same name) h)Print the new file, mytable i)Logout of the system.			5

4.	14-07-2017	<p>Session:1 a)Login to the system b)Use the appropriate command to determine your login shell c)Use the /etc/passwd file to verify the result of step b. d)Use the who command and redirect the result to a file called myfile1. Use the more command to see the contents of myfile1. e)Use the date and who commands in sequence (in one line) such that the output of date will display on the screen and the output of who will be redirected to a file called myfile2. Use the more command to check the contents of myfile2.</p> <p>Session:2 a)Write a sed command that deletes the first character in each line in a file. b)Write a sed command that deletes the character before the last character in each line in a file. c)Write a sed command that swaps the first and second words in each line in a file.</p>			5
5.	21-07-2017	a)Pipe your /etc/passwd file to awk, and print out the home directory of each user.			5

		<p>b)Develop an interactive grep script that asks for a word and a file name and then tells how many lines contain that word. c)Repeat d)Part using awk.</p>			
6.	28-07-2017	<p>a)Write a shell script that takes a command –line argument and reports on whether it is directory, a file, or something else.</p> <p>b)Write a shell script that accepts one or more file name as arguments and converts all of them to uppercase, provided they exist in the current directory.</p> <p>c)Write a shell script that determines the period for which a specified user is working on the system.</p>			5

7.	04-08-2017	<p>a)Write a shell script that accepts a file name starting and ending line numbers as arguments and displays all the lines between the given line numbers.</p> <p>b)Write a shell script that deletes all lines containing a specified word in one or more files supplied as arguments to it.</p>			5
8.	11-08-2017	<p>a)Write a shell script that computes the gross salary of a employee according to the following rules: i)If basic salary is < 1500 then HRA =10% of the basic and DA =90% of the basic. ii)If basic salary is >=1500 then HRA =Rs500 and DA=98% of the basic The basic salary is entered interactively through the key board.</p> <p>b)Write a shell script that accepts two integers as its arguments and computers the value of first number raised to the power of the second number.</p>			5
9.	18-08-2017	<p>a)Write an interactive file-handling shell program. Let it offer the user the choice of copying, removing, renaming, or linking files. Once the user has made a choice, have the program ask the user for the necessary information, such as the file name, new name and so on.</p> <p>b)Write shell script that takes a login name as command – line argument and reports when that person logs in</p> <p>c)Write a shell script which receives two file names as arguments. It should check whether the two file contents are same or not. If they are same then second file should be deleted.</p>			5
10.	01-09-2017	<p>a)Write a shell script that displays a list of all the files in the current directory to which the user has read, write and execute permissions.</p> <p>b)Develop an interactive script that ask for a word and a file name and then tells how many times that word occurred in the file. c)Write a shell</p>			5
		<p>script to perform the following string operations: i)To extract a sub-string from a given string. ii)To find the length of a given string</p>			

11.	08-09-2017	Write a C program that takes one or more file or directory names as command line input and reports the following information on the file: i)File type ii)Number of links iii)Read, write and execute permissions iv)Time of last access (Note : Use stat/fstat system calls)			5
12.	15-09-2017	Write C programs that simulate the following unix commands: a)mv b)cp (Use system calls) Write a C program that simulates ls Command (Use system calls / directory API)			5
13.	22-09-2017	Programs on R-tool/octava/SCI lab			5
14.	29-09-2017				
15.	06-10-2017				
16.	13-10-2017				
				16	
Total number of classes required to complete the syllabus					16
Total number of classes available as per Schedule					16

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.

Signature			
	Name of the Faculty	Name of Course Co-ordinator	HOD



LESSON PLAN

Department: COMPUTER SCIENCE ENGINEERING
Course :APPLIED MATHEMATICS-III (S134)
SEM: III

Program: B.Tech
Section : A
Academic Year : 2017-18

1. Pre-requisites: None
2. Course Educational Objectives (CEOs): In this course the students are introduced to numerical techniques for solving various types of equations. They also learn vector differentiation and vector integration.
3. Course Outcomes (COs): At the end of the course, the student will be able to :

CO1 : Compare the rate of accuracy between Regula falsi method and The Newton-Raphson Method in approximating a root of an equation. Also Distinguish among the criteria of selection and procedures of various Numerical integration rules.

CO2 : Estimate the best fit polynomial for the given tabulated data using the methods of Newton's interpolation and Lagrange's interpolation.

CO3 : Solve an initial value problem involving an ordinary differential equation by using various numerical methods

CO4 : Compute the Directional derivative and the divergence and the angular velocity for a given vector valued function.

CO5 : Evaluate the line, surface and volume integrals with the support of vector integral theorems.

4. Course Articulation Matrix:

Course Code	COs	Programme Outcomes												PSOs		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
S134	CO1	3	2	2									2			
	CO2	3	2	2									2			
	CO3	2	2	1									2			
	CO4	3	2	2									2			
	CO5	3	2	2									2			
1 = Slight (Low)		2 = Moderate (Medium)						3-Substantial(High)								

4. Course Delivery Plan:

S.NO	TOPIC TO BE COVERED	No.of Classes		Date	DM
		As per the Schedule	Taken		
Unit-1					
1	Introduction class	1		19-6-17	1
2	Course Objectives and applications	1		21-6-17	1
3	Introduction to solution of algebraic and transcendental equations	1		22-6-17	1
4	Bisection Method	1		24-6-17	1
5	Method of False Position	2		26-6-17 28-6-17	1
6	TUTORIAL-1	1		29-6-17	1,3
7	Newton-Raphson Method	2		1-7-17 3-7-17	1
8	Numerical Integration, Trapezoidal Rule	1		5-7-17	1
9	TUTORIAL-2	1		6-7-17	1,3
10	Simpson's 1/3 Rule	1		10-7-17	1
11	Simpson's 3/8 Rule.	1		12-7-17	1
12	TUTORIAL-3	1		13-7-17	1,3
13	Assignment/Quiz-1	1		15-7-17	4
Number of classes		15			
Unit-II					
14	Introduction to Interpolation	1		17-7-17	1
15	Forward, & Backward Differences	1		19-7-17	1
16	Symbolic Relations and separation of symbols	2		20-7-17 22-7-17	1
17	Newton's formulae for interpolation	2		24-7-17 26-7-17	1
18	TUTORIAL-4	1		27-7-17	1,3
19	Lagrange's interpolation formula	2		29-7-17 31-7-17	1
20	Gauss Interpolation formula	1		2-8-17	1
21	TUTORIAL-5	1		3-8-17	1,3
22	Assignment/Quiz-2	1		5-8-17	4
Number of classes		12			
Unit-III					
23	Numerical Solution of ODE	1		14-8-17	1
24	Solution of ODE by Taylor's series	1		16-8-17	1
25	Picard's Method of successive Approximation	1		17-8-17	1

26	TUTORIAL-6	1		19-8-17	1,3
27	Euler's Method	1		21-8-17	1
28	Modified Euler's Method	2		23-8-17 24-8-17	1
29	Runge-Kutta Method	2		26-8-17 28-8-17	1
30	TUTORIAL-7	1		30-8-17	1,3
31	Assignment/Quiz-3	1		31-8-17	4
Number of classes		11			
Unit-IV					
32	Vector Differentiation	1		4-9-17	1
32	Gradient of a scalar point function	1		6-9-17	1
34	Directional Derivatives	2		7-9-17 9-9-17	1
35	TUTORIAL-8	1		11-9-17	1,3
36	Divergence	1		13-9-17	1
37	Curl of a vector	1		14-9-17	1
38	Laplacian and second order operators	1		16-9-17	1
39	Vector Identities	1		18-9-17	1
40	TUTORIAL-9	1		20-9-17	1,3
41	Assignment/Quiz-4	1		21-9-17	4
Number of classes		11			
Unit-V					
42	Vector Integration	1		23-9-17	1
43	Line Integral	1		25-9-17	1
44	Work done Area	1		27-9-17	1
45	Surface Integral	1		28-9-17	1
46	TUTORIAL-10	1		4-10-17	1,3
47	Volume Integral	1		5-10-17	1

48	Applications on Gauss divergence Theorem	1		7-10-17	1
49	Applications on Green's Theorem	1		9-10-17	1
50	Applications on Stokes' Theorem	1		11-10-17	1
51	TUTORIAL-11	1		12-10-17	1,3
52	Assignment/Quiz-4	1		14-10-17	4
	Number of classes	11			
	Total Number of classes	60			

Delivery Methods (DM):

- 1.Chalk & Talk 2. ICT Tools 3. Tutorial 4. Assignment/Test/Quiz
5. Laboratory/Field Visit 6. Web based learning.

	Course Instructor	Course Coordinator	Module Coordinator	HOD
Signature				
Name of the Faculty				

PRINCIPAL



LESSON PLAN

Department: COMPUTER SCIENCE ENGINEERING
Course :APPLIED MATHEMATICS-III (S134)
SEM: III

Program: B.Tech
Section : B
Academic Year : 2017-18

1. Pre-requisites: None
2. Course Educational Objectives (CEOs): In this course the students are introduced to numerical techniques for solving various types of equations. They also learn vector differentiation and vector integration.
3. Course Outcomes (COs): At the end of the course, the student will be able to :

CO1 : Compare the rate of accuracy between Regula falsi method and The Newton-Raphson Method in approximating a root of an equation. Also Distinguish among the criteria of selection and procedures of various Numerical integration rules.

CO2 : Estimate the best fit polynomial for the given tabulated data using the methods of Newton's interpolation and Lagrange's interpolation.

CO3 : Solve an initial value problem involving an ordinary differential equation by using various numerical methods

CO4 : Compute the Directional derivative and the divergence and the angular velocity for a given vector valued function.

CO5 : Evaluate the line, surface and volume integrals with the support of vector integral theorems.

4. Course Articulation Matrix:

Course Code	COs	Programme Outcomes												PSOs		
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
S134	CO1	3	2	2									2			
	CO2	3	2	2									2			
	CO3	2	2	1									2			
	CO4	3	2	2									2			
	CO5	3	2	2									2			
1 = Slight (Low)		2 = Moderate (Medium)						3-Substantial(High)								

4. Course Delivery Plan:

S.NO	TOPIC TO BE COVERED	No.of Classes		Date	DM
		As per the Schedule	Taken		
Unit-1					
1	Introduction class	1		20-6-17	1
2	Course Objectives and applications	1		21-6-17	1
3	Introduction to solution of algebraic and transcendental equations	1		23-6-17	1
4	Bisection Method	1		24-6-17	1
5	Method of False Position	2		27-6-17 28-6-17	1
6	TUTORIAL-1	1		30-6-17	1,3
7	Newton-Raphson Method	2		1-7-17 4-7-17	1
8	Numerical Integration, Trapezoidal Rule	1		5-7-17	1
9	TUTORIAL-2	1		7-7-17	1,3
10	Simpson's 1/3 Rule	1		8-7-17	1
11	Simpson's 3/8 Rule.	1		11-7-17	1
12	Simpson's 3/8 Rule.	1		12-7-17	1,3
13	Assignment/Quiz-1	1		14-7-17	4
Number of classes		15			
Unit-II					
14	Introduction to Interpolation	1		15-7-17	1
15	Forward, & Backward Differences	1		18-7-17	1
16	Symbolic Relations and separation of symbols	2		19-7-17 21-7-17	1
17	Newton's formulae for interpolation	2		22-7-17 25-7-17	1
18	TUTORIAL-3	1		26-7-17	1,3
19	Lagrange's interpolation formula	2		28-7-17 29-7-17	1
20	Gauss Interpolation formula	1		1-8-17	1
21	TUTORIAL-4	1		2-8-17	1,3
22	Assignment/Quiz-2	1		4-8-17	4
Number of classes		12			
Unit-III					
23	Numerical Solution of ODE	1		5-8-17	1
24	Solution of ODE by Taylor's series	1		18-8-17	1

25	Picard's Method of successive Approximation	1		19-8-17	1
26	TUTORIAL-5	1		22-8-17	1,3
27	Euler's Method	1		23-8-17	1
28	Modified Euler's Method	2		25-8-17 26-8-17	1
29	Runge-Kutta Method	2		29-8-17 30-8-17	1
30	TUTORIAL-6	1		01-09-17	1,3
31	Assignment/Quiz-3	1		02-09-17	4
Number of classes		11			
Unit-IV					
32	Vector Differentiation	1		5-9-17	1
32	Gradient of a scalar point function	1		6-9-17	1
34	Directional Derivatives	2		8-9-17 12-9-17	1
35	TUTORIAL-7	1		13-9-17	1,3
36	Divergence	1		15-9-17	1
37	Curl of a vector	1		19-9-17	1
38	Laplacian and second order operators	1		20-9-17	1
39	Vector Identities	1		22-9-17	1
40	TUTORIAL-8	1		23-9-17	1,3
41	Assignment/Quiz-4	1		26-9-17	4
Number of classes		11			
Unit-V					
42	Vector Integration	1		27-9-17	1
43	Line Integral	1		3-10-17	1
44	Work done Area	1		4-10-17	1
45	Surface Integral	1		06-10-17	1
46	TUTORIAL-9	1		7-10-17	1,3

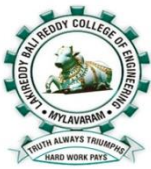
47	Volume Integral	1		10-10-17	1
48	Applications on Gauss divergence Theorem	1		11-10-17	1
49	Applications on Green's Theorem	1		11-10-17	1
50	Applications on Stokes' Theorem	1		12-10-17	1
51	TUTORIAL-10	1		13-10-17	1,3
52	Assignment/Quiz-4	1		14-10-17	4
	Number of classes	11			
	Total Number of classes	60			

Delivery Methods (DM):

1.Chalk & Talk 2. ICT Tools 3. Tutorial 4. Assignment/Test/Quiz
5. Laboratory/Field Visit 6. Web based learning.

	Course Instructor	Course Coordinator	Module Coordinator	HOD
Signature				
Name of the Faculty				

PRINCIPAL



Lakireddy Balireddy College of Engineering College
L.B.Reddy Nagar, Mylavaram , Krishna District, A.P

LESSON PLAN

Subject : MEFA

Academic Year : 2017-18

Semester : II

Date: 19-06-2017

Year : II

Section : A

To 21-10-2017

S295 – MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS

Lecture : 4 Periods/week

Internal Marks : 25

Tutorial : 1

External Marks : 75

Credits : 3

External Examination : 3

Detailed Lesson Plan

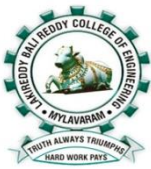
S.NO	TOPIC TO BE COVERED	Date		TLP	DM	AM
		Tentative	Actual			
UNIT –I: Introduction to managerial economics						
1.	Introduction to Subject	19-06-2017		2	1	1,3,5
2.	Unit 1:Introduction to managerial economics	20-06-2017		2	1	
3.	Introduction to economics	22-06-2017		2	1	
4.	Definitions of economics	24-06-2017		2	1	
5.	Kinds of economics:micro and macro economics	26-06-2017		2	1	
6.	Welfare economics, Definitions of managerial economics	27-06-2017		2	1	
7.	Nature of managerial economics	29-06-2017		2	1	
8.	Scope of managerial economics	01-07-2017		2	1	
9.	Tutorial	03-07-2017		2	1	

10.	Limitations of managerial economics	04-07-2017		2	1,3	
11.	Demand analysis and demand determinants	06-07-2017		2	1	
12.	Law demand and exceptions	10-07-2017		2	1	
13.	Types of demand, Elasticity of demand and types : Price elasticity of demand	11-07-2017		2	1	
14.	Cross elasticity of demand, Measurement of elasticity of demand	13-07-2017		2	1	
15.	Cross elasticity of demand, Measurement of elasticity of demand	15-07-2017		2	1	
16.	Significance of elasticity of demand	17-07-2017		2	1	
17.	Significance of elasticity of demand	18-07-2017		2	1	
18.	Tutorial	20-07-2017		2	1	
19.	Demand forecasting and explain it's factors	22-07-2017		2	1	
20.	Methods of demand forecasting (survey ,statistical ,expert opinion method, test marketing, judgment approach)	24-07-2017		2	1	
21.		25-07-2017		2	1	
22.	UNIT – II Theory of Production and Cost Analysis	27-07-2017		2	1	
UNIT –II: theory of production and cost analysis						
23.	MRTS, Least Cost Combination of Inputs	29-07-2017		2	1	
24.	Laws of Returns, Internal and External Economies of Scale	31-07-2017		2	1	1,3,5,7
25.	. Tutorial	01-08-2017		2	1	
26.	Cost Analysis: Cost concepts	03-08-		2	1	

		2017				
27.	Cost & output relationship in short run & long run,	05-08-2017		2	1,3	
28.	Break-even Analysis (BEA)- Determination of Break-Even Point	05-08-2017		2	1	
29.	Managerial Significance and limitations of BEA., simple problems	05-08-2017		2	1	
30.	Tutorial	05-08-2017		2	1	
31.	I MID EXAM	07-08-2017 TO 12-08-2017			5	
UNIT –III: introduction to markets and pricing policies						
32.	Introduction to Markets & Pricing Policies:	17-08-2017		2	1	
33.	Market structures: Types of competition	19-08-2017		2	1	
34.	Features of Perfect competition	21-08-2017		2	1	
35.	Features of Monopoly	22-08-2017		2	1	
36.	and Monopolistic Competition	24-08-2017		2	1	1,3,5,7
37.	Price-Output Determination in case of Perfect Competition	26-08-2017		2	1	
38.	Price-Output Determination in case of and Monopoly	28-08-2017		2	1	
39.	Objectives and Policies of Pricing- Methods of Pricing	29-08-2017		2	1	
40.	Method s pricing (cost plus pricing, marginal cost pricing Sealed bid pricing, going rate pricing, limit pricing,	31-08-2017		2	1	
41.	Market skimming pricing, penetration pricing two part pricing, block pricing	04-09-2017		2	1	

42.	Tutorial	05-09-2017		2	1	
UNIT –IV: Capital and capital budgeting						
43.	Capital and Capital Budgeting: Capital and its significance,	07-09-2017		2	1	
44.	Types of Capital,	09-09-2017		2	1	
45.	Estimation of Fixed and Working capital requirements,	11-09-2017		2	1	
46.	Components of working capital &	12-09-2017		2	1	
47.	Factors determining the need of working capital.	14-09-2017		2	1	1,3,5,7
48.	Methods and sources of raising finance.	16-09-2017		2	1	
49.	Nature and scope of capital budgeting,	18-09-2017		2	1	
50.	features of capital budgeting proposals,	19-09-2017		2	1	
51.	Methods of Capital Budgeting: Payback Method,	21-09-2017		2	1	
52.	Accounting Rate of Return (ARR)	23-09-2017		2	1	1,3,5,7
53.	and Net Present Value Method	25-09-2017		2	1	
54.	Profitability index, Internal rate of return	26-09-2017		2	1	
55.	Problems payback period, Problems of ARR ,Problems of NPV	28-09-2017		2	1	
56.	Problem Profitability index, Problems of IRR	03-10-2017		2	1	
57.	Tutorial	05-10-2017		2	1	
58.	UNIT – V:Introduction to Financial Accounting:					
59.		07-10-2017		2	1	

	Introduction to Financial Accounting:					
60.	Double entry system, book keeping	09-10-2017		2	1	
61.	Trial Balance- Final Accounts with simple adjustments, problems	10-10-2017		2	1	1,3,5,7
62.	Financial Analysis through ratios: Importance, types	12-10-2017		2	1	
63.	Liquidity Ratios, Activity Ratios, Capital structure Ratios and Profitability ratios Problems for liquidity ratios	14-10-2017		2	1	
64.	Financial Analysis through ratios: Importance, types	14-10-2017		2	1	
65.	Problems for activity ratios	14-10-2017		2	1	
66.	Problems for capital structure ratios, Problems for profitability ratios	14-10-2017		2	1	
67.	Tutorial	14-10-2017		2	1	
68.	II-MID EXAMS	16-10-2017 to 21-10-2017			5	



Lakireddy Balireddy College of Engineering College
L.B.Reddy Nagar, Mylavaram , Krishna District, A.P

LESSON PLAN

Subject : MEFA

Academic Year : 2017-18

Semester : II

Date: 19-06-2017

Year : II

Section : A

To 21-10-2017

S295 – MANAGERIAL ECONOMICS AND FINANCIAL ANALYSIS

Lecture: 5 Periods/week

Internal Marks

: 25

Tutorial : 1

External Marks

: 75

Credits : 3

External Examination

: 3

Detailed Lesson Plan

S.NO	TOPIC TO BE COVERED	Date		TLP	DM	AM
		Tentative	Actual			
UNIT –I:						
	Introduction to Subject	19-06-2017		2	1	1,3,5
	Unit 1:Introduction to managerial economics	21-06-2017		2	1	
	Introduction to economics	23-06-2017		2	1	
	Definitions of economics	24-06-2017		2	1	
	Kinds of economics:micro and macro economics	28-06-2017		2	1	
	Welfare economics, Definitions of managerial economics	30-06-2017		2	1	
	Nature of managerial economics	01-07-2017		2	1	
	Scope of managerial economics	03-07-2017		2	1	
	Tutorial	05-07-2017		2	1	

	Limitations of managerial economics	07-07-2017		2	1,3	
	Demand analysis and demand determinants	10-07-2017		2	1	
	Law demand and exceptions	12-07-2017		2	1	
	Types of demand, Elasticity of demand and types : Price elasticity of demand	14-07-2017		2	1	
	Cross elasticity of demand, Measurement of elasticity of demand	15-07-2017		2	1	
	Cross elasticity of demand, Measurement of elasticity of demand	17-07-2017		2	1	
	Significance of elasticity of demand			2	1	
	Significance of elasticity of demand	19-07-2017		2	1	
	Tutorial	21-07-2017		2	1	
	Demand forecasting and explain it's factors	22-07-2017		2	1	
	Methods of demand forecasting (survey ,statistical ,expert opinion method, test marketing, judgment approach)	24-07-2017		2	1	
		26-07-2017		2	1	
	UNIT – II Theory of Production and Cost Analysis	28-07-2017		2	1	
UNIT –II:						
	MRTS, Least Cost Combination of Inputs	29-07-2017		2	1	
	Laws of Returns, Internal and External Economies of Scale	02-08-2017		2	1	1,3,5,7
	. Tutorial	04-08-2017		2	1	
	Cost Analysis: Cost concepts	05-08-2017		2	1	

	Cost & output relationship in short run & long run,			2	1,3	
	Break-even Analysis (BEA)- Determination of Break-Even Point			2	1	
	Managerial Significance and limitations of BEA., simple problems			2	1	
	Tutorial			2	1	
	I MID EXAM	07-08-2017 TO 12-08-2017			5	
UNIT –III:						
	UNIT – III Introduction to Markets & Pricing Policies:	14-08-2017		2	1	
	Market structures: Types of competition	16-08-2017		2	1	
	Features of Perfect competition	18-08-2017		2	1	
	Features of Monopoly	19-08-2017		2	1	
	and Monopolistic Competition	21-08-2017		2	1	1,3,5,7
	Price-Output Determination in case of Perfect Competition	23-08-2017		2	1	
	Price-Output Determination in case of and Monopoly	26-08-2017		2	1	
	Objectives and Policies of Pricing- Methods of Pricing	28-08-2017		2	1	
	Method s pricing (cost plus pricing, marginal cost pricing Sealed bid pricing, going rate pricing, limit pricing,	30-08-2017		2	1	
	Market skimming pricing, penetration pricing two part pricing, block pricing	01-09-2017		2	1	
	Tutorial	04-09-		2	1	

		2017				
UNIT –IV:						
	Capital and Capital Budgeting: Capital and its significance,	06-09-2017		2	1	1,3,5,7
	Types of Capital,	08-09-2017		2	1	
	Estimation of Fixed and Working capital requirements,	11-09-2017		2	1	
	Components of working capital &	13-09-2017		2	1	
	Factors determining the need of working capital.	15-09-2017		2	1	
	Methods and sources of raising finance.	16-09-2017		2	1	
	Nature and scope of capital budgeting,	18-09-2017		2	1	
	features of capital budgeting proposals,	20-09-2017		2	1	
	Methods of Capital Budgeting: Payback Method,	22-09-2017		2	1	
	Accounting Rate of Return (ARR)	23-09-2017		2	1	1,3,5,7
	and Net Present Value Method	25-09-2017		2	1	
	Profitability index, Internal rate of return	04-10-2017		2	1	
	Problems payback period, Problems of ARR ,Problems of NPV	06-10-2017		2	1	
	Problem Profitability index, Problems of IRR	07-10-2017		2	1	
	Tutorial	09-10-2017		2	1	
	UNIT – V Introduction to Financial Accounting:	11-10-2017		2	1	

	Double entry system, book keeping	13-10-2017		2	1	
	Trial Balance- Final Accounts with simple adjustments, problems	14-10-2017		2	1	1,3,5,7
	Financial Analysis through ratios: Importance, types			2	1	
	Liquidity Ratios, Activity Ratios, Capital structure Ratios and Profitability ratios Problems for liquidity ratios			2	1	
	Financial Analysis through ratios: Importance, types	14-10-2017		2	1	
	Problems for activity ratios	14-10-2017		2	1	
	Problems for capital structure ratios, Problems for profitability ratios	14-10-2017		2	1	
	Tutorial	14-10-2017		2	1	
	II-MID EXAMS	16-10-2017 to 21-10-2017			5	