



**AUXILIUM COLLEGE (Autonomous)**

(Accredited by NAAC with A+ Grade with a CGPA of 3.55 out of 4 in the 3<sup>rd</sup> cycle)  
Gandhi Nagar, Vellore – 6.

**DEPARTMENT OF COMPUTER  
SCIENCE  
LESSON PLAN  
2022-2023**



# Auxilium College (Autonomous)

(Accredited by NAAC with A<sup>+</sup> Grade with a CGPA of 3.55 out of 4 in the 3<sup>rd</sup> Cycle)

Gandhi Nagar, Vellore - 632 006.

## FACULTY RECORD

Name : Ms. Nirmala Devi N.  
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Academic Year : 2022 - 2023  
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Institutional Responsibility	Department Responsibility
1. Research Committee member	1. DRAC 2. III CS - Class Tutor 3. III CS - Online Spoken Tutorial

## TIME TABLE

### ODD SEMESTER

Hour / Day Order	1	2	3	4	5
I	C#		CD	SBE	
II				↔ C# Lab ↔	
III	CD	C#			
IV	SBE	C Help	C#	CD	
V	CD	C#			
VI		RDBMS Help		CD	C#

### EVEN SEMESTER

Hour / Day Order	1	2	3	4	5
I		OS		Cloud	
II				OS	<u>III</u> SBE
III	Cloud	<u>III</u> SBE			
IV	Cloud	MP Help	OS Lab	OS Lab	
V		OS	Cloud		
VI	IP Help	OS		Cloud	Python Help

## LESSON PLAN

Academic Year : 2022-2023  
 Class : III B.Sc. CS  
 Subject : .Net Programming (C#)  
 Hours / Week : 5  
 Credits : 4

Semester : V  
 Class Code : 18  
 Subject Code : UCCSN20  
 Total Hours : 75  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
July III	5	I	Introduction - Evolution of C# - Characteristics of C# - Application of C#	Lecture method	Programming in C# Balagurusamy	Oral Test
IV	5	I	Origins of .Net Technology - .Net Framework - Common Language Runtime - Uses and Program Interfaces	Lecture method	Programming in C#	Oral Test
July V & Aug I	5	I	.Net Languages - Benefits of the .Net Approach - Simple C# Programs - Namespaces - Providing Interactive I/O	Lecture method	Programming in C#, Online material	Lab Practical
II	5	I & II	Literals, Variables & Datatypes - Decision making & Branching Statements - Decision making & Looping Statements	Lecture method	Programming in C#	Class Test
III	5	II	Methods in C# - Declaring methods - Invoking methods - Nesting of methods - Method Parameters - pass by value -	Demonstration	Study material, Online material	Class Test
IV & V	5	I	pass by Reference - O/P Parameters - method overloading - One Dimensional array - Creating an Array - 2D Arrays	Demonstration	Study material	Class Test

Sep I & II	5	II	Assay List Class - Manipulating Strings Creating String String methods - Inserting String - Comparing String	Lecture method	Programming in C++ - Beggarly	Revision
Sep I & Sep III			I - CA			
Sep III & Sep IV	5	III	Finding Substring - Assay of String - Classes & Objects - Constructors - Member Initialization - This Reference Nesting of Class - Indexers.	Demonstration	Study material	Oral Test
Sep IV & Sep IV 1/2	5	III	Classical Inheritance - Containment Inheritance - Defining a subclass - Subclass Constructors - Multilevel Inheritance.	Lecture method	Study material	Oral Test
OCT I	5	III	Hierarchical Inheritance - Overriding methods - Inheritance - Implementing interface - Interface Inheritance - Explicit Interface Implementation	Demonstration	Study material	Class Test
II	5	IV	Need for Operator Overloading - Defining operator overloading - Overloading Binary operators - Overloading Comparison operator Delegate Declaration - methods.	Lecture method	Study material	Oral Test
III	5	IV	Delegate Instantiation - Delegate Invocation Using Delegate - Events - Exceptions - Types of errors - multiple catch statements.	Lecture method	Study material	Oral Test
Nov I & II	5	IV & V	Exception Hierarchy - General Catch Handler - Using Finally Statement - Creating Window forms - Customizing a form	Lecture method	Study material	Class Test
III & IV	5	V	Creating a Windows Application - creating web-based Application on .Net - connecting network to send data to	Lecture method	Study material	Oral Test

# LESSON PLAN

Academic Year : 2022-2023  
 Class : II M. Sc. Computer Science  
 Subject : Principles of Compiler Design  
 Hours / Week : 5  
 Credits : 4

Semester : II  
 Class Code : 09  
 Subject Code : PCCCN20  
 Total Hours : 75  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
July III	5	I	Introduction: The structure of a compiler - Lexical Analysis - Recognition of tokens	Lecture method	Alfred V. Aho Compilers Principles.	Oral Test
IV	5	I	Boot Heap - Syntan Analysis - Semantic Analysis - Tokens Specification - Intermediate Code Generation -	Lecture method & Black Board	Alfred V. Aho Compiler Principles.	Class Test
V & Aug I	5	II	Code optimization - Code Generation - Symbol Table management - The grouping of Phases into Passes	Lecture method & Black Board	Study material	Oral Test
II	5	II	Compiler tools - History - Lexical Analysis Role - Input Buffering	Lecture method	Study material	Oral Test
III	5	II	Difinite finite Automata - Construction of an NFA from a Regular Expression.	PPT & Youtube Videos.	Online Resources.	Class Test
IV	5	II	Finite Automata - Non-deterministic finite Automata.	PPT & Lecture method.	Online Resources Study material	Class Test.

<u>V</u> Sep I	5	<u>III</u>	Syntax Analysis: Introduction Context-free Grammar.	Lecture method	Study material	Oral Test
<u>II</u>	5	<u>III</u>	Top-down parsing - Bottom-up Parsing	Lecture method	Study material	Class Test
<u>III</u>	5	<u>III</u>	Introduction to LR parsing.	Lecture method	Study material	Class Test
<u>IV</u>	5	<u>IV</u>	Intermediate code generation: Variants of Syntax trees.	Powerpoint Presentation.	Study material & Online resource	Oral Test
OCT <u>I</u>	5	<u>IV</u>	Three-Address code - Types and Declarations.	Power point presentation	Study material & Online Resource	Oral Test
<u>II</u>	5	<u>IV</u>	Translation of Expressions - Code generation: Design of a code generator	Powerpoint Presentation	Study material & Online Resource	Class Test
<u>III</u>	5	<u>IV</u> <u>V</u>	Basic Blocks and flow graphs - Optimization of Basic blocks	Lecture method.	Study material	Class Test
<u>IV</u> & <u>Nov II</u>	5	<u>V</u>	Peephole optimization - the principle sources of optimization.	Powerpoint Presentation	Online Resources	Class Test
<u>III</u>	5	<u>V</u>	Introduction to data flow Analysis. Apply their basic knowledge of DE to design symbol table rules.	Lecture method.	Study material	Class Test

## LESSON PLAN

**Academic Year** : 2022-2023  
**Class** : II B.Sc. Computer Science  
**Subject** : EBE: Basics of Web Design  
**Hours / Week** : 2  
**Credits** : 2

**Semester** : III  
**Class Code** : 18  
**Subject Code** : USC SA 320  
**Total Hours** : 30  
**Total Marks** : 40+60

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
July III	2	I	Introduction, HTML - HTML Tags - Creating HTML - Head, Body section.	Lecture method	Step by step HTML5 Faith Weppers	Class Test
IV	2	I	Creating Paragraphs & Line Breaks - Formatting Text.	Lecture method	Step by step HTML5	Class Test
V & Aug I	2	I	Creating Headings - Apply Formatting - Super script & Sub script	Lecture method & Black Board	Step by step HTML5	Practical (Lab)
II	2	II	List & Background, Bulleted, Numbered List, Definition List.	Demonstration	Step by step HTML5	Class Test
III	2	II	Choosing Background & Foreground Colors - Hyperlink, Anchors.	Lecture method	Step by step HTML5	Practical
IV	2	II	Introduction to style sheet, Creating Tables.	Lecture method	Step by step HTML5	Class Test



<u>V</u> & <u>sep I</u>	2	<u>III</u>	XML Overview: Working with Basics of XML - XML Namespaces	HTML5 Black Book	Lecture method	Oral Test
<u>II</u>	2	<u>III</u>	XML Trees - XML - syntax - XML Elements	HTML5 Black Book	Lecture method	Class Test
<u>III</u>	2	<u>III</u>	XML Schema - Extensible style sheet - XSL Transformation	HTML5 Black Book	Demonstration	Class Test
<u>IV</u>	2	<u>IV</u>	Program to change font style, color etc - program to design Bio-dab	Lab program	Lab practice	Class Test
<u>OCT I</u>	2	<u>IV</u>	Program to design College website Program to design TimeTable.	Study material	Lab practice	Oral Test
<u>II</u>	2	<u>IV</u>	Program to develop using links - Applying style sheets - flip the text	Study material	Lab practice	Lab Test
<u>III</u>	2	<u>V</u>	XML elements	Study material	Lab practice	Lab Test
<u>IV</u> & <u>Nov II</u>	2	<u>V</u>	XML program using DTD.	Study material	Lab practice	Lab Test
<u>III</u>	2	<u>V</u>	Revision	Study material	Lab practice	Lab Test

Full 8/11/23

## LESSON PLAN

Academic Year : 2022-23  
 Class : III B.Sc. CC  
 Subject : Cloud Computing  
 Hours / Week : V  
 Credits : 4

Semester : VI  
 Class Code : 18  
 Subject Code : VCCCS20  
 Total Hours : 75  
 Total Marks : 40+60

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Jan I	5	I	Introduction to cloud computing : Cloud Computing in Nut shell, Roots of cloud computing	Lecture method.	Rajkumar Buyya, Cloud Computing: Principles and Paradigms	Class Test
II	5	I	Types of clouds - Features of a cloud - Cloud Infrastructure management	Lecture method	Cloud Computing: Principles and Paradigms	Class Test
III	5	I	Challenges and Risks - Migrating into a cloud.	PPT & Lecture method	Online Resources	Class Test
IV	5	II	Integration as a Service - Introduction Orbit of knowledge era.	PPT & Lecture method	Online Resources	Class Test
Feb I	5	II	Evolution of IaaS - challenges - Approaches the IaaS Integration - New Integration scenarios.	Lecture method	Online Resource	Class Test
II	5	II	Integration Methodologies - SaaS Integration Services - BOB Services.	Lecture method.	{ study material	Oral Test

Feb <u>IV</u>	5	<u>III</u>	Cloud Service Models: IaaS. Introduction to IaaS, Resource virtualization	PPT & Lecture method	Online Resources	Class Test
Mar <u>I</u>	5	<u>III</u>	Server, Storage, Network, Case Studies.	Lecture method	Study material	Class Test
<u>II</u>	5	<u>III</u>	Platform as a Services Introduction - Cloud Platform management, Computation, Storage	PPT	Study material	Oral Test
<u>III</u>	5	<u>II</u>	Cloud Deployment models: Introduction Public Deployment model.	PPT	Online Resources	Oral Test
<u>IV</u> CA	5	<u>IV</u>	Private Deployment model - Virtual Private Deployment Model.	PPT	Online Resources	Oral Test
APR <u>I</u>	5	<u>IV</u>	Hybrid Deployment model - Community Deployment model.	PPT	Online Resources	Class Test
<u>II</u>	5	<u>V</u>	Cloud Challenges: Organizational Readiness - Data Security in the cloud	Lecture method	Study material	Class Test
<u>III</u>	5	<u>V</u>	Legal issues in CC - Readiness for Production Cloud Services.	Lecture method	Study material	Oral Test
<u>IV</u>	5		Revision	-	-	-

## LESSON PLAN

Academic Year : 2022-2023  
 Class : II B.L.C.C.  
 Subject : Operating System  
 Hours / Week : 4  
 Credits : 4

Semester : IV  
 Class Code : 18  
 Subject Code : UC CS J20  
 Total Hours : 4  
 Total Marks : 40+6

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Jan I	4	I	Linux: Introduction, Brief History. Unix Components / Architecture - Features of Unix	Lecture method & Black Board	Unix Shell Programming - Forouzan.	Class Test
II	4	I	Basic Commands: Directory and file Commands: pwd, ls, cd, cp, mv, rm, mkdir, rmdir, chmod	Demo session	Study material	Class Test
III	4	I	Full & Relative Pathnames, files and Directory Naming Conventions, Wildcard characters - Ownership & Permission	Lecture method	Online Resources.	Oral Test
IV	4	II	Shell Programming Languages: Naming Shell Programs, Shell Variables and Arguments.	Lecture method	Introducing Unix System II Rechel Morgan	Oral Test
Feb I	4	II	Command Line Arguments - Looping and Conditional Execution: if then else - elseif, ...fi	Demo session & Lecture method	Introducing Unix System	Class Test
Feb II	4	II	While, do, for-do done, for, while until, case stmts, break & continue true & false commands.	Demo session & Lecture method	Introducing Unix system.	Class Test

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Feb <u>IV</u>	4	<u>III</u>	System calls - Types of System calls - Process Management: Process Concepts - Inter Process Communication	PPT	Silberschatz, Operating System Principles	Class Test
Mar <u>I</u>	4	<u>III</u>	Multithread Programming: Multithread models - Process scheduling: Basic concepts.	Lecture method	Operating System Principles	Class Test
<u>II</u>	4	<u>III</u>	Scheduling Criteria - Scheduling Algorithms - Deadlock: Characterization Avoidance	PPT	Study material / COS	Class Test
<u>III</u>	4	<u>IV</u>	Memory management: Background, Swapping - Contiguous memory Allocation.	Lecture method	Study material	Class Test
<u>IV</u> & <u>II</u> CA	4	<u>IV</u>	Paging - Structure of the Page Table - Segmentation	Lecture method	Study material	Class Test
API	4	<u>IV</u>	Virtual Memory management:- Demand Paging - Page Replacement - Thrashing	Lecture method	Study material	Class Test
<u>I</u>	4	<u>V</u>	File system: Concepts, Access method - Directory structure	Lecture method	Study material	Class Test
<u>III</u>	4	<u>V</u>	File system Structure and Implementation Allocation methods.	Lecture method	Study material	Class Test
<u>IV</u>	4	<u>V</u>	Free space management - Secondary Storage structure	Lecture method	Study material	Class Test

## LESSON PLAN

Academic Year : 2022-23.  
 Class : III B.Sc. CS  
 Subject : SBE : Data Analytics using Data Visualization Tools.  
 Hours / Week : 2  
 Credits : 2

Semester : VI  
 Class Code : 18  
 Subject Code : VS CS DB20  
 Total Hours : 30  
 Total Marks : 40+60 (100)

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Jan I	2	I	Data Visualization: Introductory Benefits.	PPT	Online Resources.	Class Test
II	2	I	Data Visualization Tools - Features.	PPT	Introduction to power BI Desktop	Class Test
III	2	I	Data access from Data Sources.	Study material Lecture method	Introduction to power BI Study material	Class Test
IV	2	II	Data Transformation - Types of Charts.	Lecture method	Study material	Class Test
Feb I	2	II	Bar chart - pie chart	Demonstration	Study material	Lab Test
II	2	II	Data Tables - Scatter chart.	Demonstration	Study material	Lab Test

III	2	III	Time Series Chart - Score Card	Lecture method	FORUMS BOOK	Lab Test
IV	2	III	Scatter chart - Bullet chart	PPT	Study material	Class Test
Mar I	2	III	Area Chart - Heat Map.	Demonstration	Study material	Class Test
II	2	IV	Create a bar chart Create a Pie chart	Demonstration	Study material	Lab practice
III	2	IV	Create a scatter chart Create a time series chart.	Demonstration	Study material	Lab Test
IV & II CA	2	IV	Revision.	-	Study material	Lab Test
APR I	2	V	Create a bullet chart	Demonstration	Study material	Lab practice
II	2	IV	Creates a area chart Creates a heat map chart.	Demonstration	Online Resources	Lab practice
III	2	V	Revision.	-	Online Resources	Lab practice

# WORK DONE

Academic Year : 2021-2023

Class : II C.S, II M.Sc (CS), II C.S

Semester : V, III & III

Class Code : 18

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
18.07.22 to 29.07.22	III C.S	Introduction - Evolution of C++ - Characteristics of C++ - Applications of C++ - Origin of .NET Technology - .NET Framework	Programming in C++ Palagichandran	Lecture method
	II C.S	Introduction to HTML - HTML Tags - Creating the HTML Head, and Body Sections	Step by step steps	Lecture method
	II M.Sc (CS)	Introduction: The Structure of a Compiler - Lexical Analysis.	Principles of Compiler Design	Lecture method
25.7.22 to 29.7.22	III C.S	Common Language Runtime - User Program Interface - .NET Languages - Benefits - Simple C++ Programs.	Programming in C++	Lecture method
	II C.S	Paragraphs, Line Breaks, Formatting Text by using Tags - Creating Headings	Study material	Lecture method
	II M.Sc	Bootstrap - Syntax Analysis - Semantic Analysis - Intermediate Code	E-Resources Study material	Lecture method
1.8.22 to 5.8.22	II C.S	Namespaces - Providing Interactive I/P Literals, variables, Datatypes - Decision making & Branching Statements.	Programming in C++	Demonstration
	II C.C	Creating Paragraphs and Line Breaks - Formatting Text by using Tags - Creating Headings.	Study material	Lecture method
	II M.Sc	Code Optimization - Code Generation Symbol Table - Compiler Construction Tools.	Study material	Lecture method
8.8.22 to 13.8.22	III C.S	Decision making & Looping Statements methods in C++ - Declaring methods in C++	Programming in C++	Lecture method
	II C.C	Applying Bold & Italic Formatting Superscript & Subscript Formatting	Study material	Demo
	II M.Sc	The Evolution of Programming Language; Lexical Analysis: The Role	Study material	Lecture method
16.8.22 to 22.8.22	III C.S	Involving methods - Nesting of methods - methods parameters - Pass by value - Reference - old parameters.	Study material	Lecture method
	II C.C	List: Bulleted & Numbered List - Definition List.	Study material	Demo
	II M.Sc	Recognition of Tokens, Finite Automata - NFA - Conversion of an NFA to DFA	Study material, E-Resource	YouTube Videos & Lecture method



Date	Class	Topic Covered	Learning Resources	Teaching Methodology
19.8.22 to 1.9.22	III CS	method overloading - Array - Strings. Create, methods, Insert, Compare, Find Array of Strings.	Programming in C++	Lecture method
5.9.22	II CS	Background & foreground, Color - Creating Hyperlinks & Anchors - Style sheet.	Study material	Lecture method
16.9.22 to 16.9.22	II M.Sc.	Constructions of an NFA from a Regular Expression.	Study material & E-Resources	Lecture method
8.9.22 to 15.9.22		I CA		
		"		
		"		
16.9.22 to 19.9.22 to 23.9.22	III CS	Classes and Objects - Defining a class - Adding variables & methods - constructor - method initialization - this Reference	Study material E-Resources	Demo Lecture method
	II CS	XML Overview : Basics of XML.		Lecture method
	II M.Sc.	Syntax Analysis : Introduction, Context Free Grammar	Study material	Lecture method
26.9.22 to 30.9.22	III CS	Nesting of classes - Indentness - Classical Inheritance - Containment Inheritance - Defining a subclass - subclass constructor	Study material E-Resources	Lecture method Lecture method
	II CS	XML Namespace - XML Tree - XML Syntax		Lecture method
	II M.Sc.	Top-Down Parsing - Bottom- up - Parsing	Study material	Lecture method
5.10.22 to 7.10.22	III CS	Inheritance - Overriding methods - Interface - Interface & Inheritance	Study material	Lecture method
	II CS	XML Elements - DTD - XML Schema	E-Resources	Lecture method
	II M.Sc.	LR - Parsing - Introduction	Study material	Lecture method PPT
10.10.22 to 14.10.22	III CS	Operator overloading - Binary & Comparison operators - Delegates: Declaration, methods, mutation, variable	Study material	Lecture method
	II CS	Extensible Stylesheets - XSL Transformation.	E-Resources	Lecture method

## WORK DONE

Academic Year : 2022-23

Class : II M.Sc. ce, III ce & II ce

Semester : III, V & II

Class Code : 18

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
	II M.Sc.	Intermediate Code Generation : Variants of Syntax Tree	PPT	Lecture method
17.10.22 to 21.10.22	III CC	Using Delegate - Events - Exception - Types of errors - Catch blocks	Study material	Lecture method, Demo
	II CS	Lab Programs	Study material	Demo
	II M.Sc.	Three-Address code - Types and Declaration	PPT	Lecture method
26.10.22 to 28.10.22	III CS	Exception Hierarchy - General catch Handles - Using finally statements	Study material	Lecture method.
	II CS	Lab Programs	Study material	Demo
	II M.Sc.	Translation of Expressions.	PPT	Lecture method.
29.10.22 to 5.11.22		II - CA	-	-
7.11.22 to 11.11.22	III CC	Creating window forms - Customizing a form	Study material	Demo & Black Board
	II CS	Lab Programs	Study material	Demo
	II M.Sc.	Code Generation: Design of a code generation, Basic Blocks	Study material	Lecture method.
14.11.22 to 18.11.22	III CS	Creating a windows Application - Running a windows Application	Study material	Lecture method
	II CS	Lab Programs	Study material	Demo
	II M.Sc.	Flow graphs - optimization of Basic Blocks, Peephole optimization	Study material	Lecture method.
22.11.22 to 25.11.22	III CS	Creating web-Based Application on .Net	Study material	Demo

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
	II CS	Lab Programs	Study material	Practical
	II M.Sc	Principles of Optimization, Data Flow Analysis.	PPT	Lecture method
8.11.22 to 30.11.22	III CS	Creating a .Net application to send SMS to mobile phones - Revision	Study material	Practical
	II CS	Lab Programs, Revision	Study material	Practical
	II M.Sc	Apply their Basic Knowledge of Data Structure of Design Table - Logical Analysis - <del>Answers</del>	Study material	Lecture method
1.12.22 to 31.12.22	II CS	<i>Answer</i> 28/12/23 Logic Programs		
	II M.Sc			

## WORK DONE

Academic Year : 2022-2023  
 Class : III CS, II CS, III CS

Semester : VI & IV & VI  
 Class Code : 18

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
5.1.23 7.1.23	III CS	Introduction to Cloud Computing CC in Nutshell, Roots of CC	ppt & study material	Lecture method
	II CS	Linux: Introduction, history, components/architecture - features	Study material	Lecture method
	III SBE	Data Visualization: Introduction	Online Resources	Lecture method
9.1.23 13.1.23	III CS	Types of Cloud - features - Cloud Infrastructure management - Challenges & Risks - Migration	Study material	Lecture method
	II CS	Basic Commands: Directories & file Commands: Pwd, ls, cd, cp, mv, rm, mkdir, rmdir, chmod	Study material	Lecture method
	III SBE	Data Visualization: Introduction Benefits	Online Resource	Lecture method
		Lab programs	-	Demonstration
		-		
18.1.23 21.1.23	III CS	Migration - Integration as a service - Introduction	Study material	Lecture method
		-		
	II CS	Full & Relative Pathnames, File & Directory - Naming Conventions - Wildcard Characters ? * [ ]	Study material	Lecture method
			"	"
	III SBE	Data visualization Tools - Features.	Online resources.	PPT
		Lab Programs	-	Demonstration
		-		

23.1.23 30.1.23	III CS	Onset of Knowledge for - Evaluation of SaaS.	Study material	PPT
	II CS	Ownership & Permissions: Chmod, Chgrp, Chown.	Study material	Lecture method
		Shell Programming Languages: Naming Shell Programs.	"	"
	III CBE	Data access from Data Sources - Data Transformation.	Study material	Lecture method
30.1.23 to 4.2.23	III CS	Challenges - Approaches the SaaS Integration - New Integration	Study material	Lecture method
	II CS	Shell Variables & Arguments - Command Line Arguments -	Study material	Demonstrations & Lecture method
		Looping & conditional execution if...then...else...elif...fi.	Online resource	Lecture method
	III SBE	Types of charts - Bar - Pie chart.	Online resources	Demonstrations
6.2.23 8.2.23	III CS	Integration Methodologies - SaaS Integration Services - B2B Services.	Study material	PPT
	II CS	While - do, for - do - done, for, while, until & Case statements, break & continue, true & false commands.	Study material  Online resources	Lecture &  Demonstrations - Ho
	III CBE	Lab Program Revision.	-	Labpro - ce
9.2.23 to 16.2.23		I - CA		

## WORK DONE

Continue...

Academic Year : 2022-23

Semester : VI, IV & V

Class : III CS, II CS & I CS

Class Code : 18

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
17.2.23 to 18.2.23	III CS	Cloud Service Models - IaaS - Introduction.	Online resources	PPT
	II CS	System calls	Study material	Lecture method
	III CBE	No-Class	-	-
20.2.23 to 25.2.23	III CS	Resource visualization - Server, Storage & Network	Study material	PPT
	II CS	Types of system calls - Process management : process concepts	study material	Lecture method
	III SBE	Data Tables - Scatter Chart.	study material	Lecture method.
27.2.23 to 4.3.23	III CS	Resource visualization, server, Storage, Network, Case studies	Online resources	Lecture method.
	II CS	Types of system calls, Inter Process communication - Process concepts, Multithread models - Process scheduling.	Study material	Lecture method.
	III SBE	Timeseries chart - Heatmap chart.	study material	Demonstrat -on
6.3.23 to 10.3.23	III CS	private cloud, public cloud	Study material	Lecture method.
	II CS	Scheduling criteria - Scheduling Algorithms - Deadlock - Characteristics, Avoidance.	Study material	Lecture method
	III SBE	Unit III - Heat map, Time Series map - Area map - Introduction.	Online resources.	Lecture method.

Date	Class	Topic Covered	Learning Resources	Teaching Method
13.3.23 to 18.3.23	III CS	Private Deployment models; Virtual Private Deployment model	Online Resources	Lecture method
	II CS	Memory management: Background, Swapping - Contiguous memory Allocation - Paging.	Study material	Lecture method
	III SBE	Creating Bar Chart & Pie Chart.	Online Resource	Demonstration & Lab/Practical
20.3.23 to 25.3.23	III CS	Hybrid Deployment model - Community Deployment model.	Online Resources	Lecture method
	II CS	Structure of a Page Table - Segmentation - Virtual memory management - Demand Paging - Page Replacement.	Study material	Lecture method
	II SBE	Creating Scatter Chart and Time Series Chart, Area Chart	Online Resources	Demonstration
25.3.23 to 1.4.23		II - CA		
3.4.23, 5.4.23	III CS	Cloud Challenges: Organization Readiness	Study material	Lecture method.
	II CS	Thrashing - File system: concepts - Access method	Study material	Lecture method.
	II SBE	Butterfly chart, Heatmap Chart & Revision & Semester Exam	Online Resources.	Demonstration
6.4.23 to 9.4.23		Holidays.		
10.4.23 to 13.4.23,	III CS	Data Security in the Cloud & Introduction to concepts.	Study material	PPT
15.4.23.	II CS	Directory Structure - File System Structure & Implement ation, Allocation methods.	Study material	Lecture method.







# Auxilium College (Autonomous)

(Accredited by NAAC with A Grade with a CGPA of 3.55 out of 4 in the 3<sup>rd</sup> Cycle)

Gandhi Nagar, Vellore - 632 006.

## FACULTY RECORD

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Academic Year : 2022 - 2023  
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Institutional Responsibility	Department Responsibility
Staff Secretary	Head In-charge

## TIME TABLE

### ODD SEMESTER

Hour / Day Order	1	2	3	4	5
I		Java II B.Sc.	Research Methodology I M.Sc.		
II		Research Methodology I M.Sc.		Java II B.Sc.	
III		Java II B.Sc.		Research Methodology I M.Sc.	
IV			Java Lab II B.Sc.		
V	Research Methodology I M.Sc.			Java II B.Sc.	
VI	RDBMS Lab III B.Sc.	Research Methodology I M.Sc.			

### EVEN SEMESTER

Hour / Day Order	1	2	3	4	5
I		Internet & Web Prog. III B.Sc.	Soft Computing I M.Sc.		
II	Soft Computing I M.Sc.			Internet & Web Prog. III B.Sc.	
III				Internet & Web Prog. III B.Sc.	
IV	MP Lab Help I B.Sc.			Internet & Web Prog. III B.Sc.	Soft Comput I M.Sc.
V		Internet & Web Prog. III B.Sc.	Soft Computing I M.Sc.		
VI	Internet & Web Programming Lab III B.Sc.				

## LESSON PLAN

Academic Year : 2022-2023  
 Class : II B.Sc. Computer Science  
 Subject : Java Programming  
 Hours / Week : 5  
 Credits : 5

Semester : III  
 Class Code : \_\_\_\_\_  
 Subject Code : VCCSG20  
 Total Hours : 75  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
<u>July</u> <u>III</u>	5	<u>I</u>	Introduction to Java - Features of Java	Black Board LCD	Java Complete Reference Herbert Schildt	Stop Test
<u>IV</u>	5	<u>I</u>	Lexical Issues - Data Types - Variables	Chalk and Talk	Java Complete Reference Herbert Schildt	Group Discussion
<u>August</u> <u>I</u>	5	<u>I</u>	Operators - Type Conversion and Casting - Control Statements.	Interactive Board PPT	EResource Complete Reference Herbert Schildt	Assignment
<u>II</u>	5	<u>II</u>	Arrays - Strings - Classes and objects - Constructors	Interactive Board Video Content	EResource Complete Reference Herbert Schildt	Question papers
<u>III</u>	5	<u>II</u>	Overloading Method - Access Control - Static and Final Method - Inner class	Chalk and Talk	Complete Reference Herbert Schildt	Stop Test
<u>IV</u>	5	<u>II</u>	String class - Inheritance - overriding Method - Using Super class	Interactive Board PPT	Complete Reference Herbert Schildt	Stop Test

V	5	III	The Java IO classes and Interfaces - File	Flip Board PPT	Complete Reference Herbert Schildt	Class Discussion
September I	5	III	The Stream classes - Packages - Access Protection	Flip Board Video Content	Complete Reference Herbert Schildt	Assignment
II	5	III	Importing Packages - Interfaces	Flip Board	Complete Reference Herbert Schildt	Quiz
III	5	IV	Exception Handling: try, catch	Chalk and Talk	Programming with Java E. Balaprasanna	Question - Answer
27 IV	5	IV	Throw and Throws - Finally	Flip Board Video Content	Programming with Java E. Balaprasanna	Quiz 2
October II	5	IV	Thread - Multithreading - Creating a Thread	Flip Board PPT	Programming with Java E. Balaprasanna	Slip Test
III	5	V	The Java Applet and Interface - getDocumentBase() and getCodeBase()	Flip Board	Complete Reference Herbert Schildt	Assignment
IV	5	V	Event Handling	Chalk and Talk	Complete Reference Herbert Schildt	Seminar
November I	5	V	Working with windows using AWT classes	Flip Board Video Content	Complete Reference Herbert Schildt	Slip Test

# LESSON PLAN

Academic Year : 2022-2023  
 Class : 1M.Sc. Computer Science  
 Subject : Research Methodology  
 Hours / Week : 5  
 Credits : 5

Semester : I  
 Class Code :  
 Subject Code : PCCSC20  
 Total Hours : 75  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
July <u>III</u>	5	<u>I</u>	Research - Definition - Importance and meaning of Research characteristics - Types of Research	Interactive Board	RM Methods and Techniques C.R. Kothari	Slip Test
<u>IV</u>	5	<u>I</u>	Research Process - Identification of Research Area.	Interactive Board	RM Methods and Techniques C.R. Kothari	Quiz
August <u>I</u>	5	<u>I</u>	Selection and formulation of Research Problem - Formulation of objectives	LCD, PPT	RM Methods and Techniques C.R. Kothari	Group Discussion
<u>II</u>	5	<u>II</u>	Review of literature - Course work - Literature Survey - Collecting Research papers from Journals	Interactive Board	RM step by step Guide Rajjit Kumar	Assignment
<u>III</u>	5	<u>II</u>	Web Browsing - Efficient searching - Online Resources - Reading a Research Paper - Stopus Tool.	Interactive Board	E-Resource RM step by step Guide Rajjit Kumar	Group Discussion
<u>IV</u>	5	<u>II</u>	Develop a theoretical framework - Improve your methodology	LCD, PPT	RM Step by step Guide Rajjit Kumar	Slip Test

<u>V</u>	5	<u>III</u>	Preparing the Research design - Data collection and Preparation.	Google Slides	RM Methods x Techniques C.R. Kothari	Quiz
September <u>I</u>	5	<u>III</u>	Experimental study-Result analysis and discussions - Writing a Research Paper	Flip Board	RM step by step Guide Ranjit Kumar	Question - naires
<u>II</u>	5	<u>III</u>	Publishing the Results - IEEE format - Latex tool.	LCD, PPT	E-Content	Slip Test
<u>III</u>	5	<u>IV</u>	Significance of Report writing - Different steps - Mechanics of writing a Research Report - Precautions.	Chalk and Talk	RM Methods x Techniques C.R. Kothari	Quiz
<u>IV</u>	5	<u>IV</u>	Layout of Research Report - Types of Report - Oral Presentation - Ethical issues in Research.	Interactive Board	RM step by step Guide Ranjit Kumar	Group Discussion
October <u>II</u>	5	<u>IV</u>	Patent Registration procedure - Funding Agencies - Writing Research Proposals - Effective Presenting Methods	Google Slides	E-Resource RM step by step Guide Ranjit Kumar	Slip Test
<u>III</u>	5	<u>V</u>	Various Research areas in Computer science - Image Processing	Flip Board	E-Content	Group Discussion
<u>IV</u>	5	<u>V</u>	Networks and security - Data Mining and Machine Learning	LCD, PPT	E-Content	Seminar
November <u>I</u>	5	<u>V</u>	Wireless and sensor systems - Audio, speech, language and Signal Processing	LCD, PPT	E-Content	Seminar

Academic Year : 2022 - 2023  
 Class : III B.Sc. Computer Science  
 Subject : Internet and Web programming  
 Hours / Week : 5  
 Credits : 4

Semester : VI  
 Class Code :  
 Subject Code : VCCSR 20  
 Total Hours : 75  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
January I	5	I	Introduction - values - Numbers - strings - Unary operators - Boolean values - empty values.	Chalk and Talk	Eloquent Javascript Matiya	Slip Test
II	5	I	Automatic type Conversion - Program structure - Expressions and statements - Binding the Environment.	Interactive Board	Eloquent Javascript Matiya	Group Discussion
III	5	I	Functions - Console.log functions - Return values - Control flow - Conditional Execution - while and Do loops.	Interactive Board	Eloquent Javascript Matiya	Assignment
IV	5	II	Indenting Codes - Breaking out open loop - Dispatching on a value with switch - Comments.	LCD, PPT Interactive Board	Eloquent Javascript Matiya	Quiz
February I	5	II	Functions - Binding and scope - Function as values - Declaration Notation - Arrow functions - Call stack.	Interactive Board	Eloquent Javascript Matiya	Question - naire
II	5	II	Optional Arguments - Closure - Recursion - Growing functions - Data structure - Objects and Arrays.	Chalk and Talk	Eloquent Javascript Matiya	Quiz

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<u>III</u>	5	<u>III</u>	The New Squirrel - Data Sets and methods - Mutability - Rest Parameter - Math object - JSON	Chalk and Talk	Eloquent JavaScript Madsin	Group Discussion
<u>IV</u>	5	<u>III</u>	Web Server - PHP - Introduction - Variables - Echo - PHP strings - Constants - Operators - Control Structures	Flip Board PPT	Web Applications & Development Ivan Bayless	slip Test
March <u>I</u>	5	<u>III</u>	PHP Functions - Directory functions - File system functions - Arrays - Sorting - Super Global - String Functions - Date and Time - Mathematical Functions	Flip Board	Web Applications & Development Ivan Bayless	Quiz
<u>II</u>	5	<u>IV</u>	Miscellaneous Functions - Form Processing (GET & POST) - Form Handling - Form Validation - Form Required - URL - E-mail.	Flip Board	Web Applications & Development Ivan Bayless	slip Test
<u>III</u>	5	<u>IV</u>	Form Complete - PHP MySQL functions - Connect - create DB - Create Table - Insert Data - Get last 30 - Insert Multiple	Chalk and Talk	Web Applications & Development Ivan Bayless	Quiz
April <u>I</u>	5	<u>IV</u>	Prepared - Select Data - Delete Data - Update - Limit Data - Table Join - Database Driven Application	Flip Board	Web Applications & Development Ivan Bayless	Question -aire
<u>II</u>	5	<u>V</u>	PHP Arrays - Multi - Date and Time - PHP Include - File Handling - Open / Read	Flip Board	E-Resource	slip Test
<u>III</u>	5	<u>V</u>	File Create / Write - File Upload - PHP Cookies - Sessions - Filters - Filters Advanced - PHP Error Handling	Flip Board	E-Resource	Quiz
<u>IV</u>	5	<u>V</u>	PHP Exceptions - COM - DOM - CURL - SOAP.	Flip Board	E-Resource	slip Test

## LESSON PLAN



## LESSON PLAN

Academic Year : 2022-2023  
 Class : I M.Sc. Computer Science  
 Subject : Elective II B: Soft Computing  
 Hours / Week : 4  
 Credits : 4

Semester : II  
 Class Code :  
 Subject Code : PECSD20  
 Total Hours : 60  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
January <u>I</u>	4	<u>I</u>	Artificial Neural Networks (ANN): Introduction - History - Neural Information Processing - Hybrid Intelligence	Chalk and Talk	Principles of soft computing S.N. Deepa	Slip Test
<u>II</u>	4	<u>I</u>	Basic Concepts of Neural Networks (NN) - Network Properties - Node Properties - System Dynamics - Multi layer perceptron	Interactive Board	Fundamentals of Neural Networks Laurence Faussett	Quiz
<u>III</u>	4	<u>I</u>	Adaline - Competitive learning - Hebbian Learning - Explanation Based learning - BACON learning - Meta Dendral - Back Propagation - Applications.	Chalk and Talk	Fundamentals of Neural Nets Laurence Faussett	Question -naire
<u>IV</u>	4	<u>II</u>	Set Theoretic operations - MF formulation and Parametrization - Fuzzy sets and Fuzzy Reasoning.	Interactive Board	E-Neurofuzzy and Soft Computing Jang, Sun	Quiz
February <u>I</u>	4	<u>II</u>	Decision Making under Fuzzy states and Fuzzy Actions - Fuzzy function - Fuzzy Decomposition	Interactive Board	E-Neurofuzzy & Soft Computing Jang, Sun	Slip Test
<u>II</u>	4	<u>II</u>	Fuzzy control Methods: Mamdani - Sugeno - Tsukamoto. Input space Partitioning - Grid Partitioning - Applications.	Chalk and Talk	E-neuro fuzzy & Soft Computing Jang, Sun	Quiz

<u>III</u>	4	<u>III</u>	Adaptive Neuro Fuzzy Inference Systems (ANFIS) - ANFIS Architecture - Hybrid Learning Algorithm	Chalk and Talk	E-neuro fuzzy & soft computing Jang, Sun	Slip Test
<u>IV</u>	4	<u>III</u>	Classification and Regression Trees - Decision Trees - Tree Growing - Classification Trees - Tree Growing - Tree Pruning	Interactive Board	E-Neuro fuzzy & soft computing Jang, Sun	Quiz
March <u>I</u>	4	<u>III</u>	Rule Based Structure Identification - Output selection - Neuro Fuzzy Control I - Neuro Fuzzy Control II	Interactive Board	E-Neuro fuzzy & soft computing Jang, Sun	Group Discussion
<u>II</u>	4	<u>IV</u>	Genetic Algorithm - Encoding - Binary Encoding - Real Number Binning - Integer or Literal Permutation Encoding	Chalk and Talk	Genetic Algo Rajasekaran	Slip Test
<sup>33</sup> <u>III</u>	4	<u>IV</u>	Crossover - Mutation - Roulette wheel Selection - Rank Selection - Tournament Selection - steady state selection	Interactive Board	Genetic Algorithm Rajasekaran	Quiz
April <u>I</u>	4	<u>IV</u>	Genetic Algorithm Parameters - Population size - Crossover Rate - Mutation Rate - Applications of Genetic Algorithm - Advantages - Disadvantages	Interactive Board	Genetic Algorithm Rajasekaran	Seminar
<u>II</u>	4	<u>V</u>	Soft computing Constituents and Conventional AI - Conventional AI to Computational Intelligence - Neuro Fuzzy and soft computing - Characteristics	LCD, PPT	Principles of soft computing S.N. Deepa	Slip Test
<u>III</u>	4	<u>V</u>	Back tracking strategies - Graph search strategy - Heuristic Graph; Algorithm A - The Admissibility of A* - Comparison of AR Algorithms	Chalk and Talk	Principles of soft computing S.N. Deepa	Group Discussion
<u>IV</u>	4	<u>V</u>	Hybrid Model Applications - Fuzzy implement using Matlab	Interactive Board	soft computing with Matlab S.N. Deepa	Slip Test

## WORK DONE

UCCSG 20 - Java Programming

Academic Year : 2022 - 2023

Class :

II B.Sc. Computer Science

Semester : III

Class Code :

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
18/7/22 to 22/7/22		Introduction to Java - Features of Java	Text Book	Chalk and Talk
25/7/22 to 29/7/22		lexical Issues - Data Types - variables.	E-Resource Text Book	LCD
1/8/22 to 5/8/22		Operators - Type Conversion and Casting - Control statements - Arrays	Text Book	Flip Board
8/8/22 to 13/8/22		Strings - Classes and objects - Constructors - Overloading Methods - Access control - Static and Fixed Method	Text Book	Flip Board
16/8/22 to 18/8/22		Inner class - String class - Inheritance - Overloading Method - Using Super class	E-Resource Text Book	Chalk and Talk
22/8/22 to 26/8/22		The Java 5 to classes and Interfaces - Files	Google Slide	LCD
29/8/22 x 02/9/22		The Stream classes - Packages - Access protection	Google Slide	Flip Board
5/9/22 to 7/9/22		Importing packages - Interfaces	Text Book	Chalk and Talk

8/9/22 to 16/9/22	Exception Handling: try, catch	Text Book	Chalk and Talk
19/9/22 to 23/9/22	Throw and throws - finally	E-Resource Text Book	Flip Board
26/9/22 to 30/9/22	Thread, Multithreading - Creating a thread	Text Book	Flip Board
6/10/22 to 8/10/22	The Java Applet and Interface getDocumentBase() and	E-Resource Text Book	Chalk and Talk
10/10/22 to 14/10/22	getCodeBase() - Event Handling	Text Book	Flip Board
17/10/22 to 21/10/22	Working with windows using AWT classes	LCD	Flip Board
24/10/22 to 28/10/22	AWT classes	Google Slide	Flip Board
29/10/22 to 4/11/22	Revision	Chapter wise	Chalk and Talk
7/11/22 to 11/11/22	Revision	Chapter wise	Chalk and Talk

### WORK DONE

## PCCSC20 - Research Methodology

Academic Year : 2022-2023

Semester : I

Class

: I M.Sc. Computer Science Class Code :

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
18/7/22 to 22/7/22		Research - Definition - Importance of Research - Characteristics - Types of Research	Text Book	Chalk and Talk
25/7/22 to 29/7/22		Research Process - Identification of Research Area - Selection and formulation of Research Problem.	E-Resource Text Book	Flip Board
1/8/22 to 5/8/22		Formation of Objectives - Review of Literature - Course work - Literature survey.	Text Book	Flip Board
8/8/22 to 13/8/22		Collecting Research papers from Journals - Web browsing - Efficient searching - Online Resources	Text Book	Interactive Board
16/8/22 to 18/8/22		Reading a Research paper - Scopus Tool - Develop a Theoretical Framework - Improve your Methodology	Text Book	Flip Board
22/8/22 to 26/8/22		Preparing the Research Design - Data collection and preparation	Text Book	Interactive Board
29/8/22 to 2/9/22		Experimental study - Result Analysis and discussions - Writing a Research paper	Google Slide	Flip Board
5/9/22 to 7/9/22		Publishing the Result - IEEE format - Latex tool	Google Slide	Flip Board

8/9/22 to 16/9/22	Significance of Report Writing - Different steps - Mechanics of writing a Research Report	Text Book	Flip Board
19/9/22 to 23/9/22	Precautions - layout of Research Report - Types of Report	Text Book	Flip Board
26/9/22 to 30/9/22	Oral Presentation - Ethical issues in Research	Text Book	Flip Board
6/10/22 to 8/10/22	Patent Registration Procedure - Funding Agencies - writing Research Proposals	E-Resource Text Book	Flip Board
10/10/22 to 14/10/22	Effective presenting Methods - Various Research Areas in Computer science.	E-Resource	Flip Board
17/10/22 to 21/10/22	Image Processing - Networks and Security	Text Book	Interact Board
24/10/22 to 28/10/22	Data Mining and Machine Learning	E-Resource	Flip Board
29/10/22 to 4/11/22	Wireless and Sensor systems	E-Resource	Flip Board
7/11/22 to 11/11/22	Audio Speech, Language and Signal processing.	E-Resource	Inter active Board
	April 28/4/23		

## WORK DONE

VCCSR20 - Internet and Web Programming

Academic Year : 2022 - 2023

Semester : VI

Class

: III B.Sc. Computer Science Class Code :

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
31/1/23 to 11/1/23		Introduction - Values - Numbers - Strings - Unary operators	Text Book	Chalk and Talk
9/1/23 to 13/1/23		Boolean Values - Empty Values - Automatic type Conversion - Program structure - Expressions and statements	Text Book	Chalk and Talk
18/1/23 to 21/1/23		Binding the Environment - Functions - Console log Functions - Return values - Control Flow	E-Resource	Flip Board
23/1/23 to 28/1/23		Conditional Execution - while and Do loops - Indenting Codes - Breaking out open loop	Text Book	Interactive Board
30/1/23 to 4/2/23		Dispatching on a value with switch comments - Functions - Binding and scope - Functions as values	Google Slide	Interactive Board
6/2/23 to 8/2/23		Declaration Notation - Arrow Functions - Call stack - Optional Arguments - closure - Recursion - Growing functions - Data structure - objects and Arrays	Text Book	Flip Board
9/2/23 and 10/2/23			Text Book	Flip Board
17/2/23 and 18/2/23		The Were squisrel - Data sets and Methods - Mutability - Rest Parameter - Math Object - JSON	Google Slide	E-Resource Flip Board

20/2/23 to 24/2/23	Web Server - PHP - Introduction - Variables - PHP - Echo - string	Text Book	Chalk and Talk
	Constants - Operators		
27/2/23 to 4/3/23	Control Structures - PHP Functions - Directory Functions - File system functions - Arrays	Text Book	Flip Board
6/3/23 to 10/3/23	Sorting Arrays - Super Global - string functions	E-Resource	Flip Board
13/3/23 to 18/3/23	Date and Time - Mathematical Functions - Miscellaneous	Text Book	Chalk and Talk
	Functions - Form Processing (GET - POST)		
20/3/23 to 24/3/23	Form Handling - Form Validation Form Required - URL - Email	Text Book	Flip Board
	Form Complete - PHP MySQL functions + connect - create DB		
3/4/23 to 5/4/23	Create Table - Insert Data - Last ID - Insert Multiple	E-Resource	Flip Board
	Prepared - select Data - Delete - update - Limit Data		
10/4/23 to 15/4/23	Table Join - DB driven applica- tion - PHP Arrays - Multi	Google slide	Interact Board
	Dimensional Arrays - Date and Time		
17/4/23 to 21/4/23	PHP Include - File Handling - Open/Read - File create	Google slide	Interact Board
	Write - File upload - PHP Cookies - Sessions - Filters - Filters Advanced		
24/4/23 to 25/4/23	PHP Error Handling - PHP Exceptions - COM -	Text Book	Flip Board
	DOM - cURL - SOAP		



## WORK DONE

PEC3D20 - Soft Computing

Academic Year : 2022-2023

Semester : II

Class

: I M.Sc. Computer Science

Class Code :

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
3/1/23 to 7/1/23		Artificial Neural Networks - Introduction - History - Neural Information Processing	Text Book	Chalk and Talk
9/1/23 to 13/1/23		Hybrid Intelligence - Basic concepts of Neural Networks (NN) Network properties	E-Resource	Flip Board
18/1/23 to 21/1/23		Node Properties - System Dynamic - Multilayer Perceptions - Adaline Competitive Learning - Hebbian Learning	Text Book	Chalk and Talk
23/1/23 to 28/1/23		Explanation Based Learning - BACON learning - Meta Neural Back Propagation - Applications Set Theoretic operations.	Google Slide	Flip Board
30/1/23 to 4/2/23		MF formulation and Parameteri- zation - Fuzzy sets and Fuzzy Reasoning - Decision making under fuzzy state and fuzzy Action	Google slide	Flip Board
6/2/23 to 8/2/23		Fuzzy function - Fuzzy decomposition	Text Book	Interactive Board
9/2/23 to 10/2/23		Fuzzy Control Methods: Mamdani Sugeno - Tsukamoto. Input space partitioning - Grid Partitioning - Applications.	Text Book	Interactive Board
17/2/23 to 18/2/23		Adaptive Neuro Fuzzy Systems (ANFIS) - ANFIS Architecture	Text Book	Flip Board

20/2/23 to 24/2/23	Hybrid Learning Algorithm - classification and Regression Trees - Decision Trees: Tree growing, Tree pruning	Text Book	Flip Board
27/2/23 to 4/3/23	Rule based structure Identification - Input selection	E-Resource	Interactive Board
6/3/23 to 10/3/23	Neuro Fuzzy Control I, II - Genetic Algorithm - Encoding Binary Encoding	Text Book	Interactive Board
13/3/23 to 18/3/23	Real Number Bumping - Integer or linear Permutation Encoding - Cross over - Mutation	Text Book	Flip Board
20/3/23 to 24/3/23	Roulette wheel, Rank, Tournament and steady state selection Genetic Algorithm Parameters	E-Resource	Flip Board
3/4/23 to 5/4/23	Population Size - Crossover Rate - Mutation Rate - Applications of Genetic Algorithm - Advantages - Disadvantages	Text Book	Chalk and Talk
10/4/23 to 15/4/23	Soft computing Constituents and conventional AI - Conventional AI to Computational Intelligence Neuro Fuzzy and soft computing - characteristics.	Google slide	Flip Board
17/4/23 to 21/4/23	Back tracking strategies - Graph search strategy - Heuristic Graph: Algorithm A - The admissi- bility of A* - Comparison of AR Algorithms	Google slide	Flip Board
24/4/23 to 25/4/23	Hybrid Model Applications - Fuzzy implement using Matlab.	Text Book	Interactive Board



## TIME TABLE

### ODD SEMESTER

Hour / Day Order	1	2	3	4	5
I		RDBMS			DC
II	RDBMS			DC	C++
III	DLE LAB	DLE LAB	VE		DC
IV	C LAB	RDBMS	DC	JAVA	
V			RDBMS	RDBMS	
VI	RDBMS LAB	RDBMS LAB	DC		

### EVEN SEMESTER

Hour / Day Order	1	2	3	4	5
I	CGI			II SBE Design and Animation	
II	CGI		CGI		
III	III B.Com ECommerce	C++ Help	VE		
IV	Microprocessor lab	Microprocessor lab	Project		II SBE Design and Animation
V				Computer Graphics	Microproc
VI		IP Help		III B.Com ECommerce	Computer Graphics

## LESSON PLAN

**Academic Year** : 2022-2023  
**Class** : III B.Sc. Computer Science  
**Subject** : Relational Database Management Systems  
**Hours / Week** : 5  
**Credits** : 4

**Semester** : V  
**Class Code** :  
**Subject Code** : UCCSM20  
**Total Hours** : 90  
**Total Marks** : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
July III	5	I	File System vs DBMS Database System Applications	Black Board Smart	Database system Concepts, Abraham Silberschatz Sixth Edition	Aptitude Test
July IV	5	I	Purpose of Database Management System. View of Data	PPT - Discussion about view of data	Database system Concepts Abraham Silberschatz Sixth Edition	Group Discussion
Aug I	5	I	Database Languages - Data Storage and querying.	PPT	Database system Concepts Abraham Silberschatz	Assessments
Aug II	5	I	Data Architecture - Data Base Users and Administrators - Relational model - Structure of Relational Data	Illustration of Relational model	Database system Concepts Abraham Silberschatz	Questionaries
Aug III	5	I	Database Schemas - Relational Query Languages - Relational Operations.	PPT	Database System Concepts Abraham Silber - schatz	Illustration on Black Board
Aug IV	5	II	Introduction to SQL - Data definition Basic Structure - Additional Basic Operations - Set operations.	Video Contents	Database System concepts Abraham Silber - schatz	Aptitude Test.

SEP I	5	II	Aggregate functions - Null values - Modification of Database - Join Expression - Views - Data types - SQL Triggers	Black Board	Database system Concepts, Abraham Silberschatz 10th Edition	Aptitude Test
SEP II	5	III	Database Design - ER Model - constraints Removing - Redundant Attributes - Reduction to Relational schemas.	PPT Sense Board	Database system Concepts, Abraham Silberschatz	Group Discussion
SEP III	5	III	ER Design Issues - Extended ER Features Alternative Notations for Modelling Data - Functional Dependencies	Black Board	Database system Concepts, Abraham Silberschatz	Quiz using mentimeter
SEP IV	5	III	Features of Relational designs - Decomposition - Normalization	PPT Sense Board	Database system Concepts, Abraham Silberschatz	Group Discussions
45 SEP V	5	IV	Storage and File Structure - Overview of Physical Storage media - Magnetic Disks - RAID Tertiary Storage	Black Board	Database system Concepts, Abraham Silberschatz	Assignments
OCT I	5	IV	File organization - Organization of Records in Files - Data dictionary Storage Ordered Indices.	Sense Board PPT	Database system Concepts, Abraham Silberschatz	Annotations through white Board online
OCT II	5	V	Distributed Databases - Distributed Data Storage - Distributed Transaction Commit Protocols	Black Board	Database system Concepts, Abraham Silberschatz	Assignments
OCT III	5	V	Concurrency control - Object based Database - Complex Data types	Black Board	Database system Concepts, Abraham Silberschatz	Assignments
OCT IV	5		Structured types and Inheritance in SQL - Object Identity and Reference	Sense Board	Database system Concepts	Group Discussion

# LESSON PLAN

Academic Year : 2022-2023  
 Class : II M.Sc. Computer science  
 Subject : Distributed and cloud computing  
 Hours / Week : 5  
 Credits : 4

Semester : V  
 Class Code :  
 Subject Code : PCCSM20  
 Total Hours : 75  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Aug I	5	I	Cloud computing Fundamentals - Motivation for cloud computing - Defining Cloud computing - Principles of cloud	Black Board	Essential of Cloud computing K. Chandrasekaran	Aptitude test
Aug II	5	I	Cloud characteristics - Cloud computing Architecture and Management - Cloud Deployment models - NIST Applications	PPT	Essential of Cloud computing K. Chandrasekaran	Assignments
Aug III	5	II	Cloud Service models - Infrastructure as a Service	Video contents	Essential of Cloud computing K. Chandrasekaran	Group Discussion
Aug IV	5	II	Platform as a Service - Software as a Service - Cloud Storage	PPT	Essential of Cloud computing K. Chandrasekaran	Annotations through white board
Sep I	5	II	Advantages of cloud Storage Cloud Service Providers Google - Amazon web service	Sense Board	Essential of Cloud computing K. Chandrasekaran	Aptitude Test
Sep II	5	III	Principles of Distributed Programming Paradigms - Mapreduce - Twister Iterative Mapreduce	Video contents	Essential of Cloud computing K. Chandrasekaran	Quiz using Google form

Sep III	5	III	Hadoop Library from Apache Mapping Applications - cloud8rm	PPT	Distributed and cloud computing Kai Huang	Aptitude Test
Sep IV	5	III	Google APP Engine, Amazon AWS - Cloud Software Environments	Sense board	Distributed and Cloud Computing Kai Huang	Group Discussion
Oct I	5	IV	Clustering for Massive Parallelism Computer clusters - MPP Architectures	Video contents	Distributed and Cloud Computing Kai Huang	Assignment
Oct II	5	IV	Design Principles of Computer clusters	Black Board	Distributed and Cloud Computing Kai Huang	Aptitude Test
Oct III	5	IV	cluster Job and Resource Manage ments, Case Studies of TOP <sup>super</sup> <sub>computers</sub>	PPT	Distributed and Cloud Computing Kai Huang	Questions
Oct IV	5	V	Implementation Levels of Virtuali -zation - virtualization structures	Video Contents	Distributed and cloud Computing Kai Huang	Aptitude Test
Nov I	5	V	virtualization tools and mechanisms I/O devices Virtualization of CPU, memory and	Black Board	Distributed and Cloud Computing Kai Huang	Assignment
Nov II	5	V	<del>Virtual clusters. Resource Management</del> 28/4/20	Illustration of Resource Management	Distributed and Cloud Computing Kai Huang	Group Discussion
Nov III	5	V	Virtualization of Data center	PPT	Distributed and cloud computing	Assignment



## LESSON PLAN

Academic Year : 2022-2023  
 Class : III B.Sc. Computer Science.  
 Subject : Computer Graphics  
 Hours / Week : 5  
 Credits : 5

Semester : VI  
 Class Code :  
 Subject Code : UECSE20  
 Total Hours : 25  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Jan I	5	I	Overview of Graphics Systems Video Display device.	Video Conferents	Computer Graphics Donald Hearn M. Pauline Baker	Attitude Test
Jan II	5	I	Refresh Cathode Ray tubes Raster Scan Displays.	Black Board	Computer Graphics Donald Hearn H. Pauline Baker	Group Discussion
Jan III	5	I	Random Scan Displays Color CRT Monitors	PPT	Computer Graphics Donald Hearn H. Pauline Baker	Assignments
Jan IV	5	I	Direct view Storage Tubes Flat Panel Displays.	Black Board	Computer Graphics Donald Hearn H. Pauline Baker	Attitude Test
Feb I	5	I	Three Dimensional viewing Devices.	Illustration of Three Dimensional viewing Devices	Computer Graphics Donald Hearn H. Pauline Baker	Questionnaire
Feb II	5	I	Stereoscopic and virtual Reality System.	Black Board	Computer Graphics Donald Hearn Pauline Baker	Quiz using Google form

Feb <u>IV</u>	5	II	Random scan systems - video controller Random scan systems	<del>White</del> Board	Computer Graphics Donald Hearn M. Pauline Baker	Appitude Test
Feb <u>IV</u>	5	II	Input Devices - Keyboard - Mouse Trackball and Spaceball - Hand Copy <small>- devices</small>	PPT	Computer Graphics Donald Hearn M. Pauline Baker	Illustration
Mar <u>I</u>	5	II	Line Drawing Algorithms - DDA Algorithms Circle Generating Algorithm - Properties of Ellipses	Video Contents	Computer Graphics Donald Hearn M. Pauline Baker	Questionnaire
Mar <u>II</u>	5	III	Basic Transformation - Translation - Rotation - Scaling - Other transformation Reflection - Shearing.	Black Board	Computer Graphics Donald Hearn M. Pauline Baker	Assignment
Mar <u>III</u>	5	III	Three Dimensional Display Method Parallel Projection - Depth cueing - Three Dimensional Transformations.	PPT	Computer Graphics Donald Hearn M. Pauline Baker	Group Discussion
Apr <u>I</u>	5	IV	Three Dimensional viewing - Viewing Pipeline - Parallel Projections - Perspective Projections.	Video Contents	Computer Graphics Donald Hearn M. Pauline Baker	Assignment
Apr <u>I</u>	5	IV	Windows to view point coordinate Clipping operations - Point clipping Line clipping - Area Clipping.	<del>White</del> Board	Computer Graphics Donald Hearn M. Pauline Baker	Appitude Test
Apr <u>II</u>	5	V	Classification visible surface Detection Algorithms.	Video Contents	Computer Graphics Donald Hearn M. Pauline Baker	Illustration
			Back face Detection - Depth Buffer - A	PPT	Computer Graphics Donald Hearn M. Pauline Baker	

## LESSON PLAN

Academic Year : 2022-2023  
 Class : III B.com B&I  
 Subject : E-Commerce, E Banking & Tally  
 Hours / Week : 6  
 Credits : 4

Semester : VI  
 Class Code :  
 Subject Code : UCBIR20  
 Total Hours : 75  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Jan I	5	II	Mobile Commerce - Introduction Factors that drive M-commerce.	Blackboard	M-commerce Guide	Group Discussion
Jan II	5	II	Difference between E-commerce and M-commerce. Growth of M-commerce.	LCD	M-commerce Guide	aptitude Test
Jan III	5	II	Advantages of Mobile Commerce. Technology behind Mobile Commerce.	PPT	M-commerce Guide	Group Discussion
Jan IV	5	II	Application of M-commerce. Future of Mobile Commerce	Interactive board	M-commerce Guide	Assessment
Mar I	5	III	E-Banking Meaning - Benefits.	Classroom Teaching	M-commerce Guide	Questionnaire
Mar II	5	III	Internet Banking Services Mobile Banking.	PPT	M-commerce Guide	Aptitude Test

Mar <u>II</u>	5	<u>III</u>	TeleBanking - Call Centre Banking - Features.	Black Board	Business Insider	Group Discussion
Mar <u>II</u>	5	<u>III</u>	ATM Credit card - Debit card Smart card	PPT	Business Insider	Aptitude Test
Mar <u>II</u>	5	<u>III</u>	Biometrics and Micro cheques Benefits.	Interactive Board	Business Insider	Assessment
Mar <u>II</u>	5	<u>III</u>	Electronic Clearing System - RBI Guidelines.	Classroom Teaching	Business Insider	Group Discussion
Mar <u>III</u>	5	<u>III</u>	Benefits - Cheque transaction - E Cheques	PPT	Business Insider	Aptitude Test
Mar <u>III</u>	5	<u>IV</u>	E-Money - Digital cash - Benefits to Banker and Customer.	Interactive Board	Business Insider	Assessment
Mar <u>III</u>	5	<u>III</u>	Single Window - Concepts and Benefits.	PPT	Business Insider.	Group Discussion

Academic Year : 2022-2023  
 Class : II B.Sc. CS  
 Subject : Skill Based Elective: Design & Animation  
 Hours / Week : 2  
 Credits : 4

Semester : IV  
 Class Code :  
 Subject Code : UECSB420  
 Total Hours : 30  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Jan I	2	I	Introduction to Multimedia Elements of Multimedia	video contents	Introduction to Multimedia Judith Josh.	Discussion
Jan II	2	I	Using Multimedia - Benefits of using Multimedia platform.	Sense Board	Introduction to Multimedia Judith Josh.	Assessment
Jan III	2	I	Multimedia Hardware - System software - Future Directories	PPT	Introduction to multimedia Judith Josh.	Questionnaire
Jan IV	2	I	Storage - Magnetic Media - Optical Media - Introduction Bitmaps.	Classroom Teaching	Introduction to Multimedia Judith Josh.	Illustration
Feb I	2	II	vector toolbar - selection tools - painting tools Create an action using photoshop	Interactive Board	Introduction to photoshop	aptitude Test
Feb II	2	II	Editing Tools - Retouching tools color transformation	PPT.	Introduction to photoshop	Discussion

Feb III	2	II	Working with layers - Design a Bookcover.	Video contents	Introduction to Photoshop	Assessment
Feb IV	2	II	Layer style - hooking layers Merging layers	LCD	Introduction to Photoshop	Questions
Mar I	2	II	Managing Layer Components Create an Animation.	Interactive Board	Introduction to Photoshop.	Illustration
Mar II	2	III	Introduction to Flash - Traffic light control using flash.	Black Board	Introduction to Flash	Discussion
Mar III	2	III	Color & text, Symbols and Instance, library, Text and Animation.	PPT	Introduction to Flash	Aptitude Test
Apr I	2	III	Slide show presentation	LCD	Introduction to Flash	Discussion
Apr II	2	IV	Create a Greeting Card using Flash.	Black Board	Introduction to Flash	Illustration
Apr III	2	V	Create a Masking using Flash Create an animation using Flash	Classroom Teaching	Introduction to Flash.	Questions

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# LESSON PLAN

Academic Year : 2022-2023  
 Class : I B.Sc. Computer Science.  
 Subject : Microprocessor  
 Hours / Week : 3  
 Credits : 4

Semester : II  
 Class Code :  
 Subject Code : UCCSF20  
 Total Hours : 45  
 Total Marks : 150

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Jan I	3	I	Introduction to Intel processor Minimum Mode Maximum Mode.	Video content	Introduction to 8086 using Processor Via youtuber	Assignment
Jan II	3	I	Pin Function of 8086. Addressing Modes.	8086 Board	Introduction to 8086 using Processor Via youtuber	Quizzes
Jan III	3	I	8086 Architecture.	Black Board	Introduction to 8086 using Processor Via youtuber	Discussion
Jan IV	3	II	Machine Language and Assembly Language	Class room Teaching	Introduction to 8086 using Processor Via youtuber	Discussion
Feb I	3	II	Program Module of 8086.	Interactive Board	Introduction to 8086 using Processor Via youtuber	Quizzes
Feb II	3	II	Data Transfer Instruction Arithmetic Instruction.	Black Board	Introduction to 8086 using Processor Via youtuber	Discussion

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Feb III	3	II	Arithmetic Instruction	PPT	Introduction to 8086 Microprocessor Vijayendra	Assignment
Feb IV	3	II	Logical Instruction	Black Board	Introduction to 8086 Microprocessor Vijayendra	Questionnaire
Mar I	3	II	Shift Instruction Compare Instruction	Classroom Teaching	Introduction to 8086 Microprocessor Vijayendra	Profitude Test
Mar II	3	III	Jump Instruction Loop Instruction	Sense Board	Introduction to 8086 Microprocessor Vijayendra	Discussion
Mar III	3	III	String Instruction. Write an Assembly code in Data Manipulation using 8 bit.	PPT	Introduction to 8086 Micro Processor	Illustration
Apr I	3	IV	Data Manipulation using 16 bits Find largest number in an array	Classroom Teaching	Introduction to 8086 Micro Processor	Illustration
Apr II	3	V	Arranging the data in ascending order Block Move.	Black Board	Introduction to 8086 Micro Processor	Discussion
Apr III	3	V	Assembly code for reverse Array element.	Classroom Teaching	Introduction to 8086 Micro Processor	Assignment

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Academic Year : 2022-2023  
 Class : II B.Sc. CS

WORK DONE

Semester : IV  
 Class Code :

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
3/1/23 to 7/1/23	II B.Sc. CS	Introduction to Multimedia. Elements of Multimedia.	Multimedia Jeffcoate Judith	PPT
9/1/23 to 15/1/23	II B.Sc. CS	Using Multimedia Benefits of Multimedia.	Multimedia Jeffcoate Judith	Sense Board
18/1/23 to 21/1/23	II B.Sc. CS	Multimedia Hardware.	Multimedia Jeffcoate Judith	Lecture Method
23/1/23 to 28/1/23	II B.Sc. CS	Create an Action in Photoshop.	Photoshop CS6, Kogent Learning	PPT
30/1/23 to 4/2/23	II B.Sc. CS	System software Future Directories.	Multimedia Jeffcoate Judith	Lecture Method
6/2/23 to 8/2/23	II B.Sc. CS	Storage for Multimedia.	Multimedia Jeffcoate Judith	Sense Board
9/2/23 to 16/2/23	II B.Sc. CS	Storage for Multimedia Design a Book Cover in Photoshop.	Multimedia Jeffcoate Judith	Video Concepts
17/2/23 to 18/2/23	II B.Sc. CS	Selection tools - Editing tools Color Setting.	Photoshop Kogent Learning	PPT
20/2/23 to 24/2/23	II B.Sc. CS	Revision	Multimedia Jeffcoate Judith.	PPT
27/2/23 to 4/3/23	II B.Sc. CS	II CA Examination.		
6/3/23 to 10/3/23	II B.Sc. CS	Create an Animation using Photoshop.	Photoshop CS6, Kogent Learning	Lecture Method
13/3/23 to 18/3/23	II B.Sc. CS	Layers - working with layers Introduction Flash - Basics	Photoshop CS6, Kogent Learning	PPT
20/3/23 to 24/3/23	II B.Sc. CS	Traffic light control using Action Script in Flash.	Flash CS6 Kogent Learning	Video Concepts
25/3/23 to 1/4/23	II B.Sc. CS	Creating objects - Editing objects Create a Slideshow presentation.	Flash CS6 Kogent Learning	Lecture Method
03/4/23 to 06/4/23	II B.Sc. CS	Color and text - Symbols and Instances.	Flash CS6 Kogent Learning	Sense Board





# Auxilium College (Autonomous)

(Accredited by NAAC with A' Grade with a CGPA of 3.55 out of 4 in the 3<sup>rd</sup> Cycle)

Gandhi Nagar, Vellore - 632 006.

## FACULTY RECORD

Name : Dr. PUSHPA ANJANET SHEENA  
Department : COMPUTER SCIENCE  
Academic Year : 2022 - 23  
Institutional Mail ID : pushpacs@auxiliumcollege.edu  
Mobile No. : 9962122115  
ERP. ID : AUXMCS372

Institutional Responsibility	Department Responsibility
* Member of Entrepreneurship Development Cell.	* First Year Tutor. * Department Log book Incharge.

# LESSON PLAN

Academic Year : 2022-23  
 Class : III. BSC COMPUTER SCIENCE  
 Subject : DATA MINING  
 Hours / Week : 5  
 Credits : 5

Semester : V  
 Class Code :  
 Subject Code : UE CSB 20  
 Total Hours :  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
JULY <u>III</u>	5	I	Basic Data mining Task - Data mining versus knowledge discovery Data mining issues - social implications of Data mining	Black Board	Data mining Introductory and Advanced topic Margaret H. Dunham	Classroom Questionnaire
IV	5	I	Data mining From a Database Perspective. Data mining Techniques. Intro - A statistical perspective on Data mining	Interactive Board.	Data mining Introductory and Advanced topic Margaret H. Dunham	Slip test
AUG I	5	I	Similarity measures Decision Trees Neural networks - Genetic Algorithm	PPT	Data mining Introductory and Advanced topic Margaret H. Dunham	Group discussion
<u>II</u>	5	<u>II</u>	Classification Introduction. Statistical - Based Algorithm.	Black Board Video Contents	Data mining Introductory and Advanced topic Margaret H. Dunham	Home test
<u>III</u>	5	<u>II</u>	Distance Based Algorithms. Decision tree Based Algorithms.	Black Board Interactive Board	Data mining Introductory and Advanced topic Margaret H. Dunham	Post test
IV	5	<u>II</u>	Neural Network - Based Algorithm Rule Based Algorithms.	PPT Video Content	Data mining Introductory and Advanced topic Margaret H. Dunham	Quiz

<u>V</u>	5	<u>III</u>	Clustering: introduction - similarity and distance measures - outliers Hierarchical Algorithms - partitional Algorithms	Black board PPT	Data mining - Introductory and Advanced topics Margaret H. Dunham	Classroom Questions
SEP <u>I</u>	5	<u>IV</u>	Association Rules - Introduction - Large User sets - Basic Algorithms Parallel and distributed Algorithms	Interactive Board Black board	Data mining - Introductory and Advanced topic Margaret H. Dunham	Collaborative Learning
<u>I</u>	5	<u>III</u>	Comparing Approaches - Incremental Rules Advanced Association Rules Techniques - measuring the quality of Rules	Video content Black board	Data mining - Introductory and Advanced topic Margaret H. Dunham	mind Mapping
<u>III</u>	5	<u>IV</u>	Web mining: Introduction - web content mining crawlers web structure mining	Images Black board	Data mining - Introductory and Advanced topic Margaret H. Dunham	slip test
<u>IV</u>	5	<u>IV</u>	Web usage mining: overview - primitives Spatial mining	PPT Black board	Data Mining - Introductory and Advanced topic Margaret H. Dunham	Assignment Questions
OCT <u>II</u>	5	<u>IV</u>	Generalization and Specialization Spatial Rules - Spatial Classification Algorithm	Interactive Board	Data Mining - Introductory and Advanced topic Margaret H. Dunham	Quiz
<u>III</u>	5	<u>V</u>	Temporal mining: Introduction Modeling Temporal events	Video tutorials Black board	Data mining Margaret H. Dunham	Discussion Forum
<u>IV</u>	5	<u>V</u>	Time series Pattern detection	Images PPT	Data mining - Margaret H. Dunham	slip test
NOV			Seasonal Temporal Association	Black	Data mining	

Academic Year : 2022-23  
 Class : III - BSC COMPUTER SCIENCE  
 Subject : R-PROGRAMMING  
 Hours / Week : 2  
 Credits : 2

Semester : V  
 Class Code :  
 Subject Code : USCFN20  
 Total Hours :  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
JULY <u>III</u>	5	<u>I</u>	Introduction to R and R studio Basic objects: Vector	Black board PPT	Learning R Prog - Kon Ron	Classroom Questions
IV	5	<u>I</u>	Matrix, Array Lists	Interactive Board Black board	Beginning-R The SPS S Dr Mark Lubin	Collaborative Learning
AUG <u>I</u>	5	<u>I</u>	Data Frames Functions	Video content Black board.	Learning R - Prog - Kon Ron	Mind Mapping
<u>II</u>	5	<u>II</u>	Basic Expressions: Assignment Expressions Conditional Expressions	Images Black board	Learning R - Prog - Kon Ron	Class test
<u>III</u>	5	<u>II</u>	loop Expressions Basic objects: object Function - logical Function	Interactive Board	Learning R - prog - Kon Ron	Step out
IV	5	<u>II</u>	Math Functions, Numeric Methods Statistical Function - APPLY Family Function	Video tutorials Black board	Learning R - Prog - Kon Ron	Assignment Questions

<u>V</u>	5	<u>III</u>	Working with Strings Working with Data	Images PPT	Beginning - R The SPSS Dr. Naveen Kondra	Quiz
SEP I	2	<u>III</u>	Meta programming	Black board	Beginning - R The SPSS Dr. Naveen Kondra	Discussion Forum
<u>II</u>	2	<u>II</u>	Object Oriented programming	PPT	Beginning - R The SPSS Dr. Naveen Kondra	Slip test
<u>III</u>	2	<u>IV</u>	Write a program that prints 'Hello world' to the screen.	Program. PPT	Beginning - R The SPSS Dr. Naveen Kondra	Classroom Question
<u>IV</u>	2	<u>IV</u>	Write a program that asks the user for a number n and prints the sum of the numbers 1 to n	Black board video content	R-programming - video tutorial by IBM	Home test
OCT <u>II</u>	2	<u>IV</u>	Write a program that prints a multiplication table for numbers upto 12 Write a function that returns the largest element in list	PPT	R-programming video-tutorial - by IBM	post test
<u>III</u>	2	<u>V</u>	Write a function that computes the running total of a list Write a function that asks the user for a number n and prints the sum	video content	R-programming tutorial - by IBM	Group discussion
<u>IV</u>	2	<u>V</u>	Selection sort Insertion sort Bubble sort	video tutorial PPT	IBM - R Prog video tutorial	Quiz
NOV <u>I</u>	2	<u>V</u>	Linear Search, Binary Search Bubble Sort, Insertion Sort, Selection Sort	Programs video tutorial	IBM - R - Prog video tutorial	Home test

## LESSON PLAN

Academic Year : 2022-23  
 Class : II-year- B.Sc Computer Science  
 Subject : Windows programming with VB.NET  
 Hours / Week : 5  
 Credits : 2

Semester : III  
 Class Code :  
 Subject Code : UCS120  
 Total Hours :  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
JULY I	4	I	Introduction about the .NET Framework	Black board PPT	VB.NET, Black book Series, Steven Holzner Programming with Charles Petzold	Classroom Questions
II	4	I	Visual studio Integrated development Environment - Introduction to VB.NET VB.NET fundamentals - Variables - data types	Interactive Board Black board	VB.NET, Black book Series Steven Holzner Prog. windows Charles Petzold	Quiz in lab
AUG I	4	I	Arrays - control flow statements Functions and procedures	Video Content Black board	VB.NET, Black book Series Steven Holzner Prog. windows Charles Petzold	Collaborative Learning
II	4	II	Implementing ops in VB.NET - Classes Constructors - Inheritance - Static classes	Images Seminar	VB.NET, Black book Series Steven Holzner Prog. windows Charles Petzold	Mind Mapping
III	4	II	Interfaces - Exception Handling - Collections Arrays - Array List collection	Interactive Board	VB.NET, Black book Series Steven Holzner Prog. windows Charles Petzold	Programs Test
IV	4	II	Handling characters - Strings, dates File I/O operations	Video Tutorials Black board	VB.NET, Black book Series Steven Holzner Prog. windows Charles Petzold	Assignments Questions



I	4	III	Overview of windows programming Event driven programming - GUI	Images PPT	VB.net book C# book Prog windows C# book	Quiz
SEP I	4	III	Data Types - Resources - Windows Basic Drawings - GDI - Device Context	Black board	VB.net book C# book Prog windows C# book	Step test
II	4	III	Dots and lines - Creating the Display the windows Text output - Scroll bar - Keyboard - Mouse	PPT	VB.net book C# book Prog windows C# book	Discussion Forum
III	4	IV	VB.net program to accept a character and check it is vowel or not To add the elements of an array	Programs LCD projector video tutorials	VB.net book C# book Prog windows C# book	Group discussion
IV	4	IV	Design a form and event handler for keyboard and mouse events Console applications to handle exception	Programs LCD projector	VB.net book C# book Prog windows C# book	Programs Test
OCT I	4	IV	Exception handling	Programs LCD projector	VB.net book C# book Prog windows C# book	Logic Discussion
III	4	V	Application to use various controls in VB.net To create notepad using menu	Programs LCD projector	VB.net book C# book Prog windows C# book	Job in the coding
IV	4	V	Windows application to perform File operation	Programs LCD projector	VB.net book C# book Prog windows C# book	Class Test
			Digital clock in VB.net	Programs LCD projector	VB.net book C# book Prog windows C# book	Quiz

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## LESSON PLAN

Academic Year : 2022-23  
 Class : III  
 Subject : STATISTICAL PACKAGE FOR SOCIAL SCIENCE  
 Hours / Week : 3  
 Credits : 2

Semester : V  
 Class Code :  
 Subject Code : UGCSA120  
 Total Hours : 45  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
JULY III	3	I	Spss Introduction. Task bar and Start Menu	Images PPT	Spss For windows step by step -Darren George	Quiz
IV	3	I	COMMON Buttons Commonly used windows. Creating and Editing a database	Black board LCD projector	Spss for windows Step by step -Darren George	Step List
AUG I	3	I	Select case - Sort case - Merging Files Painting Results.	Video tutorials	Spss for windows step by step -Darren George	Discussion Forum
II	3	II	Graphs and charts - producing graphs and charts Bar charts - Line Graphs.	Interactive Board.	Spss for windows Step by step -Darren George	Lesson Discussion
III	3	II	pie charts - Box plots Error Bar charts	Black board PPT	Spss for windows step by step -Darren George	Program Test
IV	3	II	Histograms - Scatter plots Understanding Frequencies.	Black board Images	Spss for windows step by step -Darren George	Logic Discussion

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<u>V</u>	3	<u>III</u>	Descriptive Statistics, Normal distribution, Mean, median mode. Variable & standard deviation	spss video tutorial	spss for windows step by step - download George	Class list
SEP I	3	<u>III</u>	skewness kurtosis	Interactive Board	spss for windows step by step - download George	Quiz
<u>A</u>	3	<u>III</u>	Maximum, minimum range and <sup>sum</sup> Standard error.	Images Seminar	spss for windows step by step - download George	Testing Test
<u>II</u>	3	<u>IV</u>	Creating datafile, assigning names and values and saving it Creating a datafile and find the percentage.	Interactive Board Black board	spss for windows step by step - download George	Program
<u>IV</u>	3	<u>IV</u>	A simple analysis to create a frequency table Create a new variable based on counting variable	program demo in Interactive board	spss for windows step by step - download George	Class list
OCT <u>II</u>	3	<u>IV</u>	Creating charts for different variables.	program demo in Interactive board	spss for windows step by step - download George	Download Form
<u>II</u>	3	<u>V</u>	Statistical application to obtain central tendency and dispersion values Editing of tables and charts in word document	program demo in interactive board	spss for windows step by step - download George	Step Test
<u>IV</u>	3	<u>V</u>	A simple analysis to create correlation A simple analysis to create difference t-test	PPT	spss for windows step by step - download George	program Test
				LED projector	spss for windows step by step - download George	Quiz

Academic Year : 2022-23  
 Class : III  
 Subject : STATISTICAL PACKAGE FOR SOCIAL STUDIES  
 Hours / Week : 3  
 Credits : 2

Semester : VI  
 Class Code :  
 Subject Code : 0965AN20  
 Total Hours : 18  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Jan I	3	I	SPSS Introduction Task bar and start Menu	Images PPT	SPSS windows Step by step - Project - Learning	Quiz
II	3	I	Common Buttons Commonly used windows Creating and Editing a Datafile	Black board LCD projector	SPSS windows Step by step - Concepts - Learning	Class Test
III	3	I	Select case Sort case - Merging files Painting Results	Video Tutorial	SPSS windows Step by step - Project - Learning	Discussion Forum
IV	3	I	Graphs and charts - producing graphs and charts	Interactive Board	SPSS windows Step by step - Project - Learning	Group Discussion
V	3	II	Bar chart Line Graph	Black board PPT	SPSS windows Step by step - Project - Learning	Program Test
Feb I	3	II	Pie chart Box plots Error Bar charts	Black board Images	SPSS windows Step by step - Project - Learning	Group Discussion
II	3	II	Histograms - Scatter plots Understanding - Frequencies	Black board Images	SPSS windows Step by step - Project - Learning	Group Discussion

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IV	3	III	Mean, Median, Mode, Variance and Standard deviation	spss video Tutorial	Spss for windows step by step - Darren George	Class Test
Nov I	3	II	Skewness kurtosis	Interactive Board	Spss for windows step by step - Darren George	Quiz
II	3	III	Maximum, minimum, range, sum Standard Error.	Images Seminar.	Spss for windows step by step - Darren George	Coding Test
III	3	IV	Creating Databfile, assigning names and values and saving it Creating a Patabfile, Find the Percentage	Interactive Board Black board.	Spss for windows step by step - Darren George	Assignment
IV	3	V	A simple Analysis to create a Frequency Table Create a new Variable based on existing variable	Program Demo in Interactive Board	Spss for windows step by step - Darren George	Class test
V	3	VI	Creating Charts For different Variables.	Program Demo in Interactive Board	Spss for windows step by step - Darren George	Discussion Forum.
APRIL I	3	VII	Statistical Application to obtain Central tendency and dispersion values	PPT	Spss for windows step by step - Darren George	Slip Test
II	3	VIII	A simple analysis to create Correlation A simple analysis to create different T-Test Analysis	LCD projector	Spss for windows step by step - Darren George	Collaborative Learning
III	3	IX	Chi square values	LCD projector.	Spss for windows step by step	Quiz

LESSON PLAN

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# LESSON PLAN

Academic Year : 2022-23  
 Class : 10 - BBA  
 Subject : Fundamentals of Information Technology and System  
 Hours / Week : 5  
 Credits : 4

Semester : VI  
 Class Code :  
 Subject Code : CBA0620  
 Total Hours : 75  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Jan I	5	I	Computer Architecture - The First electronic computer Low level languages - High level languages	Images PPT	Fundamentals of IT Alexis Leon Matthew Leon	Quiz
II	5	II	The First Commercial computers - Inside a typical computer system	Black board LED projector	Fundamentals of IT Alexis Leon Matthew Leon	slip test
III	5	III	Peripheral devices, Auxillary storage devices Input devices - output devices.	Video Tutorials.	Fundamentals of IT Alexis Leon Matthew Leon	Group discussion
IV	5	IV	Algorithm Flowcharts	Interactive Board	Fundamentals of IT Alexis Leon Matthew Leon	collaborative Learning
Feb I	5	I	Control structure - programming paradigm Prog languages - generation of programming languages	Black board PPT	Fundamentals of IT Alexis Leon Matthew Leon	Assignment
II	5	II	Introduction to computer software - definition, categories Software piracy - software terminologies	Black board Images	Fundamentals of IT Alexis Leon Matthew Leon	Seminar

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IV	5	III	Computers in business and Industry Computers in Home Computers in Education and training	Video tutorial	Fundamentals of IT Alexis Leon Matthew Leon	Quiz
March I	5	III	Computers in Education and training Entertainment, Sports, Medical → Enginering Internet, WWW, E-Mail, Mail Basis	Black board	Fundamentals of IT Alexis Leon Matthew Leon	Slip test
I	5	III	E-Mail Ethics E-Mail Advantages / Dis-adv Mailing list	Images PPT	Fundamentals of IT Alexis Leon Matthew Leon	Discussion Forum.
III	5	IV	Introduction Basic concepts of Management Information System	Interactive Board	Management Information system Shakti Raj	Seminar
IV	5	IV	Scope of Management Information System Classification of Information System	Black board Videos.	Management Information system Sahi Raj	Assignment
APRIL I	5	IV	Characteristics of Management Information System Functions of Management Information system	Images Interactive Board	Management Information system Shakti Raj	Mind Mapping
II	5	V	Introduction to Functional information system Marketing Management Information system	Black board PPT	Management Information system Sahi Raj	Quiz
II	5	V	Human Resource Information System Financial Management Information system	Images Black board	Management Information system Sahi Raj	Class Test
II	5	V	Production and Inventory Information system	Black board	Management Information system Sahi Raj	Class Test

# LESSON PLAN

Academic Year : 2022-23  
 Class : I  
 Subject : DATA STRUCTURES WITH C++  
 Hours / Week : 4  
 Credits : 4

Semester : II  
 Class Code :  
 Subject Code : UCCSD20  
 Total Hours : 48  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Jan I	4	I	Principles of OOP Basic concepts - Benefits - Applications Introduction to C++	Black board	OOP with C++ Balagurusamy	Class test
II	4	I	Tokens - keywords - Identifiers Variables - operators - Expression Control structures	LCP projector	OOP with C++ Balagurusamy	Quiz
IV	4	I	Functions - Function prototyping Parameter passing in Functions Values returned, inline functions, <sup>function</sup> overloading	Video tutorial	OOP with C++ Balagurusamy	Slip Test
V	4	II	Classes and objects Constructors and destructors operator overloading	Black board	OOP with C++ Balagurusamy	Assignment
Feb I	4	II	Inheritance - Types - virtual base class Abstract classes Constructors in inheritance	PPT	OOP with C++ Balagurusamy	Seminar
II	4	II	Virtual functions and polymorphism Pointers in objects - This pointer	PPT	OOP with C++ Balagurusamy	Discussion Forum

Date: \_\_\_\_\_

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<u>IV</u>	4	<u>III</u>	Virtual Functions - polymorphism, Pointers to objects, this pointer Pointers to derived classes	PPT	oop with c++ Balagurusamy	Mind mapping
March <u>I</u>	4	<u>III</u>	Virtual functions, pure virtual functions, mapping console, I/O operations, File streams	Black board	oop with c++ Balagurusamy	Slip test
<u>II</u>	4	<u>III</u>	File operations - File pointers Command line arguments Exception handling	Program's Tutorial	oop with c++ Balagurusamy	Quiz
<u>III</u>	4	<u>IV</u>	Basic Terminology - Data structures - Datastructure operation, Traversing linear arrays - Inserting and deleting	Black board	Data structures outline series Schaum's	Seminar
<u>IV</u>	4	<u>IV</u>	Linear search, Binary search, multi dimensional array, Pointers, pointer array, Linked list, Traversing, Searching	PPT	Data structures outline series Schaum's	Class test
APRIL <u>I</u>	4	<u>IV</u>	Singly linked list, doubly linked list Stacks, Arith expr, Polish notation, Recursion, Queues - Trees.	Video tutorial Images	Data structures outline series Schaum's	Seminar
<u>II</u>	4	<u>V</u>	Graphs, Warshall Algorithm, Adjacency First search, depth first search, path matrix, heap sort,	Black board Images	Data structures outline series Schaum's	Collaborative Learning
<u>II</u>	4	<u>V</u>	Traversing on graphs - Breadth shortest path - linked rep. Hashing - collision Resolution Inserting, linear probing	PPT Black board	Data structures outline series Schaum's	Class test

# WORK DONE

Academic Year : 2022-23

Semester : 2

Class :

III BSC COMPUTER SCIENCE  
DATA MINING

Class Code :

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
July <u>III</u>	<u>III</u> BSC -CS	Basic Data mining tasks Data mining Vs KDD Data Mining Issues	Data mining Margaret H. Dunham	Black board
July IV	<u>III</u> BSC CS	Social implications of data mining Data mining - A database perspective Data mining Techniques	Data mining Margaret H. Dunham	Interactive board
Aug I	<u>III</u> BSC CS	Statistical perspective of data mining Similarity measures	Data mining Margaret H. Dunham	PPT
<u>I</u>	<u>III</u> BSC CS	Decision trees Neural Networks - Genetic Algorithm	Data mining Margaret H. Dunham	Black board Video content
<u>III</u>	<u>III</u> BSC CS	Classification: Introduction Statistical Based Algorithms	Data mining Margaret H. Dunham	Black board Interactive board
<u>IV</u>	<u>III</u> BSC CS	Distance Based Algorithms Decision tree Based Algorithms	Data mining Margaret H. Dunham	PPT Video Content
<u>V</u>	<u>III</u> BSC CS	Neural network based Algorithms	Data mining Margaret H. Dunham	PPT Black board
SEP I	<u>III</u> -BSC CS	Rule Based Algorithms	Data mining Margaret H. Dunham	Interactive Board
<u>II</u>	<u>III</u> -BSC CS	Clustering Introduction Similarity and distance measures Outliers	Data mining Margaret H. Dunham	Video content Black board
<u>III</u>	<u>III</u> BSC CS	Hierarchical Algorithms Partitional algorithms Association rules Introduction	Data mining -Margaret H. Dunham	PPT
<u>II</u>	<u>III</u> BSC CS	Large Item sets - Basic Algorithms Parallel and distributed Algorithms	Data mining Margaret H. Dunham	Video tutorial
<u>IV</u>	<u>III</u> -BSC CS	Company approaches - Incremental Advanced association rules Measuring the quality of Rules	Data mining Margaret H. Dunham	Black board PPT
OCT I	<u>III</u> -BSC CS	Web mining Introduction Web content Mining Crawlers	Data mining Margaret H. Dunham	PPT Video content
<u>II</u>	<u>III</u> -BSC CS	Web structure Mining Web usage Mining	Data mining Margaret H. Dunham	Black board PPT
<u>III</u>	<u>III</u> -BSC CS	Spatial mining Overview - Generalization & Specialization Primitives	Data mining Margaret H. Dunham	Interactive board

OCT IV	III BSC CS	Spatial rules - Spatial Classification Algorithm.	data mining margaret H Dunham	PPT
NOV I	III BSC CS	Temporal Mining - Introduction Modeling temporal events	data mining margaret H Dunham	Black board
I	III BSC CS	Time series	Data mining margaret H Dunham	Interactive board
II	III-BSC CS	Pattern detection.	Data mining margaret H Dunham	PPT video content
II	III -BSC CS	Sequences Temporal Association Rules	Data mining margaret H Dunham	Black board

## WORK DONE

Academic Year : 2022-23

Semester : I

Class : II - BSC COMPUTER SCIENCE  
R- PROGRAMMING

Class Code :

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
July I	II - BSC CS	Introduction to R Introduction to R studio	Learning-R Prog - kun Ren	Blackboard PPT
July II	II - BSC CS	Basic objects Vector	Learning-R Prog - kun Ren	Interactive Board
Aug I	II - BSC	Matrix, Array, lists	Learning-R Prog - kun Ren	Video Content
I	III - BSC CS	Data Frames Functions	Learning-R Prog - kun Ren	Black board
II	III - BSC CS	Basic Expression Assignment Expressions	Learning-R Prog - kun Ren	Images Blackboard
III	III - BSC CS	Conditional Expressions Loop Expressions	Learning-R Prog - kun Ren	Interactive board
III	III - BSC CS	Basic object: Object Functions Logical Functions	Begining-R The SPSS Dr. mark	Black board
IV	III - BSC -CS	Math Functions, Numeric Methods Statistical Functions	Begining-R The SPSS Dr. mark	Video Content
IV	III - BSC -CS	Apply Function Family Function	Begining-R The SPSS Dr. mark	Images Blackboard
V	III - BSC -CS	Working with strings	Begining-R The SPSS Dr. mark	PPT
SEP II	III - BSC CS	Working with Data	Begining-R The SPSS Dr. mark	Video Tutorial
III	III - BSC -CS	Meta programming	Begining-R The SPSS Dr. mark	PPT Blackboard
IV	III - BSC -CS	Object Oriented programming	Begining-R The SPSS Dr. mark	Blackboard
OCT I	III - BSC -CS	Hello world program Print the sum of n numbers	Begining-R The SPSS Dr. mark	Interactive board
I	III - BSC -CS	multiplication table program Largest element program	Begining-R The SPSS Dr. mark	Images



## WORK DONE

Academic Year : 2022-23

Semester : III

Class : II - BSC COMPUTER SCIENCE Class Code : UCCS120

Windows Programming in VB.NET

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
July <u>III</u>	<u>II</u> BSC -CS	Introduction about the .Net Framework Visual studio - IDE	VB.NET Steven Holzner	Black board
IV	<u>II</u> BSC CS	V.B. NET Fundamentals Variables - data types	VB.NET Steven Holzner	PPT
AUG I	<u>II</u> - BSC CS	Arrays - control flow Statements	VB.NET Steven Holzner	Video Tutorial
<u>II</u>	<u>II</u> -BSC CS	Functions and Procedures	VB.NET Steven Holzner	Interactive board.
<u>III</u>	<u>II</u> - BSC CS	Implementing OOPS in VB.NET - classes	VB.NET Steven Holzner	Images. Blackboard.
<u>IV</u>	<u>II</u> - BSC CS	Constructors - Inheritance - Static classes	VB.NET Steven Holzner	Black board.
<u>V</u>	<u>II</u> - BSC CS	Interfaces - Exceptions - collections Arrays	VB.NET Steven Holzner	Interactive board
<u>V</u>	<u>II</u> - BSC CS	Handling characters, strings Dates - File I/O	VB.NET Steven Holzner	PPT
SEP I	<u>II</u> - BSC CS	Overview of Windows Programming, Event driven programming	programming windows Charles.	Images Blackboard
<u>II</u>	<u>II</u> -BSC CS	GUI concepts Data types - Resources - messages windows	programming windows Charles	Interactive board
<u>II</u>	<u>II</u> - BSC CS	Basic drawings : GDI - pen & context - dots and lines creating & displaying the window	programming windows Charles	Interactive Board
<u>III</u>	<u>II</u> - BSC CS	Text output - scroll bars - keyboard - Mouse - Menus	programming windows Charles.	LCD Projector
<u>III</u>	<u>II</u> - BSC CS	VB.NET .NET program to accept a character and to check vowel or not	VB.NET Steven Holzner	LCD Projector
IV	<u>II</u> - BSC CS	VB.NET .NET program to add the elements of an array	VB.NET Steven Holzner	LCD Projector
OCT I	<u>II</u> -BSC CS	Design a Form and event handler for keyboard and mouse events	VB.NET Steven Holzner	LCD Projector.



# WORK DONE

Academic Year : 2022-23  
 : III-YEAR-NME

Semester : V  
 Class Code : UGICSA20

STATISTICAL PACKAGE FOR SOCIAL SCIENCE

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
July III	III	SPSS- Introduction Task bar and start menu.	Spss Darren & Paul	Interactive Board.
IV	III	Common Buttons Commonly used windows	Spss - Darren & Paul	LCD Projector
Aug I	III	Creating and Editing a Data File	Spss - Darren & Paul	Black board
I	III	Select-case, Sort case, Merging Files	Spss - Darren & Paul	Interactive Board
II	III	Producing Graphs and Charts, Bar charts, line graphs	Spss - Darren & Paul	PPT
I	III	Pie chart - Box plots Error Bar charts	Spss - Darren & Paul	images programs
III	III	Histograms Scatter plots	Spss - Darren & Paul	Black board.
III	III	Understanding Frequencies	Spss - Darren & Paul	LCD Projector
IV	III	Descriptive statistics - Normal distribution, Mean, median, Mode	Spss - Darren & Paul	LCD Projector
IV	III	Variance and standard deviation skewness	Spss - Darren & Paul	LCD Projector
SEP II	III	kurtosis Maximum, minimum	Spss - Darren & Paul	LCD Projector
III	III	Range and sum Standard Error.	Spss - Darren & Paul	LCD Projector Images
IV	III	Creating data Files, assigning names and values to variables and saving it.	Spss - Darren & Paul	LCD Projector
IV	III	Creating data file and find the percentage.	Spss - Darren & Paul	Black board
OCT I	III	Running a Simple analysis to Create a Frequency table.	Spss - Darren & Paul	Interactive Board





# WORK DONE

Academic Year : 2022-23  
 Class : III

Semester : VI  
 Class Code : UGIC SAN 20-

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
Jan I	III	SPSS- Introduction Task bar and Start Menu	SPSS for windows - Darren & Paul	Interactive board
II	III	Common buttons Commonly used windows. Creating and Editing.	SPSS for windows - Darren & Paul	LCD projector
IV	III	Select case - sort case Merging files Printing results	SPSS for windows - Darren & Paul	Black board
V	III	Graphs and charts - producing graphs and charts - Bar chart Line graph	SPSS for windows - Darren & Paul	PPT
Feb I	III	Pie chart Box plots Line graph	SPSS for windows - Darren & Paul	Images
II	III	Histogram - understanding Scatter plots Error bar - charts Frequencies	SPSS for windows - Darren & Paul	Program
IV	III	Descriptive Statistics Normal distribution. Mean, Median, Mode, Variance	SPSS for windows - Darren	Black board
Mar I	III	Standard deviation Skewness Kurtosis	SPSS for windows - Darren	LCD projector
II	III	Maximum, Minimum, range, sum, standard Errors.	SPSS for windows Darren	LCD projector
III	III	Creating data file. Assigning Names and values and saving it	SPSS for windows Darren	LCD projector
IV	III	Creating a datafile Find the percentage	SPSS for windows - Darren & Paul	LCD projector
III	III	A simple analysis to create frequency table.	SPSS for windows - Darren & Paul	Black board
IV	III	Create a new variable based on existing variable.	SPSS for windows - Darren & Paul	Black board
IV	III	Creating charts for different Variable.	SPSS for windows - Darren & Paul	LCD projector
IV	III	Statistical application to obtain Central tendency	SPSS for windows - Darren & Paul	LCD projector

I	III	Statistical application to obtain dispersion values.	Spec for windows Darren & Paul	LCD projector
II	III	A simple analysis to obtain correlation.	Spec for windows Darren & Paul	LCD projector
II	III	A simple analysis to create T-test	Spec for windows Darren & Paul	LCD projector
III	III	Chi-square test values	Spec for windows Darren & Paul	LCD projector

# WORK DONE

Academic Year : 2022-23  
 Class : III - BBA

Semester : VI  
 Class Code : CBA0620 - IT

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
Jan I	<u>III</u>	Computer architecture - The First Electronic Computer - Low level languages	Fundamentals of IT Alex/mattou learn	Black board
<u>II</u>	<u>III</u>	High level languages, The First commercial computer, Inside a typical computer	Fundamentals of IT Alex/mattou learn	Black board
<u>IV</u>	<u>III</u>	Peripheral devices, Auxiliary storage, Input & output devices	Fundamentals of IT Alex/mattou learn	Black board
<u>V</u>	<u>III</u>	Algorithms Flowcharts	Fundamentals of IT Alex/mattou learn	Black board
Feb I	<u>III</u>	Control structures programming paradigm	Fundamentals of IT Alex/mattou learn	PPT
<u>II</u>	<u>III</u>	programming languages generation of programming languages	Fundamentals of IT Alex/mattou learn	PPT
<u>IV</u>	<u>III</u>	Introduction to computer software definition - categories.	Fundamentals of IT Alex/mattou learn	PPT
March I	<u>III</u>	Software piracy Software terminologies	Fundamentals of IT Alex/mattou learn	Images Videos
<u>II</u>	<u>III</u>	Computers in business Industry computers in Home computers in Education & training	Fundamentals of IT Alex/mattou learn	Images Videos
<u>III</u>	<u>III</u>	Computers in Education and training Entertainment, science, medical Engineering.	Fundamentals of IT Alex/mattou learn	Images
<u>III</u>	<u>III</u>	Internet, WWW, E-mail, mail Basics	Fundamentals of IT Alex/mattou learn	LCD projector
<u>III</u>	<u>III</u>	E-mail Ethics. E-mail Advantages / Dis-adv.	Fundamentals of IT Alex/mattou learn	LCD projector
<u>IV</u>	<u>III</u>	Mailing list Introduction - Basis of Management Information system	MIS shahi raj	LCD projector
<u>IV</u>	<u>III</u>	Scope of Management Information system. Classification of Information system	Management Information system shahi raj	Black board
<u>IV</u>	<u>III</u>	Characteristics of Management Information system Functions of Management information system	Management Information system shahi raj	black board

APRIL	(I)	Introduction to functional Information System	Management Information System	Images
I	(II)	Marketing management Information system	Shahi raj	
II	(III)	Human Resource Information system	Management Information System	PPT
		Financial management information system	Shahi raj	
II	(IV)	Production and Inventory Information System.	Management Information System	Images
			Shahi raj	
(III)	(V)	SCM and CRM	Management Information System	Black board
			Shahi raj	

# WORK DONE

Academic Year : 2022-23  
 Class : I-year

Semester : II  
 Class Code : UCCSD20 - C++

Date	Class	Topic Covered	Learning Resources	Teaching Methodology
Jan I	I	Principles of oops Basic concepts - Benefits & applications Introduction to c++	oop with c++ Balagurusamy	Black board
II	I	Tokens - keywords - Identifiers Variables - Operators - Expressions	oop with c++ Balagurusamy	Black board
IV	I	Control Structures Functions - Function prototyping	oop with c++ Balagurusamy	Black board
V	I	Parameter passing in Functions Values returned, Inline functions	oop with c++ Balagurusamy	Black board
Feb I	I	Function Overloading Classes and objects, constructors, destructors	oop with c++ Balagurusamy	PPT
II	I	Operator Overloading Inheritance - Types - virtual base class	oop with c++ Balagurusamy	PPT
III	I	Abstract classes Constructors in Inheritance	oop with c++ Balagurusamy	PPT
Mar I	I	Virtual Functions and polymorphism Pointers in objects, This pointer -	oop with c++ Balagurusamy	PPT
II	I	pointers to derived classes. Virtual Functions, Pure virtual Functions	oop with c++ Balagurusamy	Led projector
III	I	mapping console, I/O operators, File streams.	oop with c++ Balagurusamy	Led projector
IV	I	Virtual Functions - polymorphism, Pointers to objects, This pointer	oop with c++ Balagurusamy	Led projector
V	I	Pointers to derived classes File operators - File pointers	oop with c++ Balagurusamy	Led projector
VI	I	Command line arguments Exception handling	Datastructures outline series Schaur's	Black board
VII	I	Basic terminology - Datastructures Datastructure operations	Datastructures outline series Schaur's	Black board
VIII	I	Traversing - linear arrays - Inserting and deleting	Datastructures outline series Schaur's	Black board





# Auxilium College (Autonomous)

(Accredited by NAAC with A<sup>+</sup> Grade with a CGPA of 3.55 out of 4 in the 3<sup>rd</sup> Cycle)

Gandhi Nagar, Vellore - 632 006.

## FACULTY RECORD

Name : Yasmine SKA  
Department : Computer Science  
Academic Year : 2022-2023  
Institutional Mail ID : yasmine@auxiliumcollege.edu.in  
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Institutional Responsibility	Department Responsibility
1. Placement Cell Member	* I Year Tutor * Association Incharge * Guiding projects [M.sc] * Guiding projects [B.sc]



ODD SEMESTER

Hour / Day Order	1	2	3	4	5
I				DCN	
II		DCN		C	
III	DLF Lab	DLF Lab	V.E		
IV	C Lab	C Lab	DLF		DCN
V	DCN		C		C
VI	RDBMS Help		C	DCN	VB-NET HELP

EVEN SEMESTER

Hour / Day Order	1	2	3	4	5
I		D.S			
II		D.S		EComm	EV
III	C++ HELP		V.E		
IV	Python	Project	UNIX HELP		D.S
V	D.S		ECom	E.V.S	
VI	IP HELP		D.S	Python Lab	

**LESSON PLAN**

Academic Year : 2022-2023  
 Class : III B.Sc C.A  
 Subject : Data Communication and Networking  
 Hours / Week : 5  
 Credits : 4

Semester : V  
 Class Code : ULLS020 / 18  
 Subject Code :  
 Total Hours : 75  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
July III	5	I	Data Communications: Data Network and Internet - today's Enterprise communication Model - Data Communication	Lecture Method	Data & Computer communication William Stallings	Oral test
IV	5	I	Communication Model - Internet protocol architecture - TCP/IP & Internet Applications - OSI model Standardization	Black board	Data & Computer communication William Stallings	Class test
July V & Aug I	5	I	Traditional Internet Based Applications multimedia data Transmission - Concepts Terminology - Analog data	Lecture method & Black board	Data & Computer communication William Stallings	Oral test
II	5	I	Digital data - Impairments - Channel capacity - Transmission media - Guided Transmission - Wireless	PPT & Black board	William Stallings PPT Material	Oral Test
III	5	II	Transmission - Propagation - Line of sight transmission - signal encoding Techniques	PPT	William Stallings PPT Material	Class Test
IV & V	5	II	Digital data digital signals - Digital data Analog signals - Analog data digital signals	PPT & Youtube videos	Data Communication PPT Material	Oral Test

Sep I x II	5	II	Analog data - analog signals - digital data communication techniques - types of modulation & spread spectrum - types of errors - detection - correction - coding	Lecture method ppt	Data & Computer Communication William Stallings	class test
Sep II x III	5		I - CA			
Sep III x Sep IV	5	III	Data link control protocols - flow control Error control - high level data link control - multiplexing - frequency division multiplexing - TDM	Lecture method	Data & Computer Communication William Stallings	oral test
Sep IV x Sep V	5	III	Statistical time division multiplexing Asymmetric digital subscriber line - spread spectrum - direct sequence	PPT	William Stallings PPT Material	oral test
Oct I	5	III x IV	spread spectrum - code division multiple access - circuit switching	Black board x lecture	William Stallings PPT Material	class test
Oct II	5	IV	packet switching - switched comm netw circuit switching netw, concepts - soft switch Architecture - packet switching	PPT, Youtube Videos	Data & Computer Communication William Stallings	class test
Oct III	5	IV, V	Frame relay - ATM - protocol architecture ATM logical connections - ATM cells Transmission of ATM cells, categories	Lecture Method	Data & Computer Communication William Stallings	oral test
Nov I x II	5	V	Routing in switched netw - Routing in Packet switching netw - ARPANET - least cost algorithms - congestion control in data netw - CA	Lecture Method	William Stallings PPT Material	oral test
Nov III	5	V	Effects of congestion - control - Traffic management - frame relay congestion control	PPT	William Stallings PPT Material	class test

**LESSON PLAN**

Academic Year : 2022-2023  
 Class : I B.Sc C.S  
 Subject : programming in C  
 Hours / Week : 4  
 Credits : 4

Semester : I  
 Class Code : 18  
 Subject Code : UCCSA20  
 Total Hours : 60  
 Total Marks : 40 + 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
July III	6	I	Algorithm and flowchart - Basic techniques - sum of 2 given numbers - swapping 2 numbers - simple interest	PPT	Balagurusamy PPT materials	oral test
IV	6	I	overview of C, constants and variables - data types	Black board x lecture	Balagurusamy PPT materials	class test
July I x Aug I	6	II	Operators - expressions - managing input and output operators	PPT, Youtube Videos	Balagurusamy PPT materials	oral test
Aug II	6	II	Decision making and branching - Decision making and looping	Lecture method	Balagurusamy PPT materials	oral test
III	6	III	Arrays - one dimensional array - predefined strings	Black board x lecture	Balagurusamy Pdf material	class test
IV x V	6	III	Reading and writing strings	Black board x lecture	Balagurusamy PPT material	oral test

Sep I x II	6	III	Arithmetic operation on characters	Lecture method x PPT	Balagurusamy programming in C Books	class test
Sep II x III	6		I-CA			
Sep III x IV	6	III	Putting string together - comparison of two strings.	Black Board & lecture	Balagurusamy programming in C Book	oral test
Sep IV x Oct I	6	III	String handling - functions - other feature of strings	PPT	Balagurusamy PPT material	class test
Oct I x II	6	IV	User defined functions - Introduction Refining and Accessing functions	youtube videos	Balagurusamy programming in C PDF	Oral test
Oct II x III	6	IV	function prototypes - categories of function passing of argument	lecture method	Balagurusamy PPT material	class test
Oct III x IV	6	IV-IV	Nesting of functions - recursion passing arrays to functions	PPT	Balagurusamy PPT material	class test
Nov I x II	6	V	Passing strings to function - scope visibility & lifetime of variable	Black Board x lecture	Balagurusamy programming in C PDF	class test
Nov II x III	6	V	Structures & union	PPT	Balagurusamy	oral test

### LESSON PLAN

Academic Year : 2022-2023  
 Class : 2 BSC C.S  
 Subject : Digital logic & Fundamentals  
 Hours / Week : 3  
 Credits : 2

Semester : 2  
 Class Code : 18  
 Subject Code : VCCSC20  
 Total Hours : 3  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
July III	3	I	Number system - Binary numbers - Conversion from one no system to other Number base conversion.	Black board & lecture	Digital computer fundamentals - vijendran	class test
IV	3	I	Octal & Hexadecimal numbers - complements - Binary Arithmetic - Binary codes - Binary logic	PPT	Digital computer fundamentals - vijendran	oral test
July I x Aug I	3	I	logic gates - Truth table - Boolean algebra - basic theorems and properties of Boolean algebra.	youtube videos	Digital computer fundamentals - vijendran	oral test
Aug II	3	II	Simplification of boolean functions the map method - two and three variable maps - four variable maps	pdf materials	Digital computer fundamentals - vijendran	class test
III	3	II	Six variable maps - tabulation methods - McCluskey tabulation methods.	lecture method	Digital computer fundamentals - vijendran	class test
IV x V	3	II	combinational logic - Address - Half Adder and full adder.	PPT	Digital computer fundamentals - vijendran	Oral test

SEP I x II	3	II	subtractor - half subtractor - full subtractor Encoders - decoders - multiplexers - demultiplexers	Black Board lecture	Balogun's programming in C book	oral test
SEP II x III	5		I (A)	lecturing method	Balogun's programming in C book	class test
SEP III x IV	3	III	Design of circuits using decoders/multiplexers; Demultiplexers; sequential logic - Introduction - flip flops - flip flop	lecture method in PPT	Balogun's programming in C book PPT material	class test
SEP IV x OCT I	3	III	Registers - Registers with parallel load - shift registers - serial transfer Bidirectional - serial addition	Youtube videos	Balogun's programming in C book PPT material	oral test
OCT I x II	3	IV	Verify the truth table of logic gates AND, OR, NOT gate	PPT	Balogun's programming in C book PPT material	oral test
OCT II x NOV I	3	IV	Construct half-adder circuit using logic gates. full adder	Blackboard method	Balogun's programming in C book	class test
NOV I x II	3	V	Half subtractor full subtractor	lecturing method	Balogun's programming in C book	class test
NOV II x DEC I	3	V	SOP - NAND Gate	Youtube videos	Balogun's programming in C book PPT material	class test
DEC I x II	3	V	POS - NOR using Gate	PPT	Balogun's programming in C book PPT material	class test

**LESSON PLAN**

Academic Year : 2022-2023  
 Class : III B.SCC'S  
 Subject : DATA SCIENCE  
 Hours / Week : 5  
 Credits : 5

Semester : VI  
 Class Code : 18  
 Subject Code : VECS D20  
 Total Hours : 5  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
JAN I	5	I	Basics of Data science: properties of data - structure data	Lecture method & Black Board Method	Online Ebooks	Class Test
II	5	I	unstructured data - quantitative data - categorical data - Big data	Demo session	Tutorials point website	class Test
III	5	I	Little Data - Data visualization Tool Boxes - for Data science etc	lecture method	online resources	class Test
IV	5	II	Introduction to core concepts and tech - Intro terminology - data science process	lecture method	study material	oral test
FEB I	5	II	Data science Toolkits - types of data - Example applications	Black Board & lecture	Book of GRECS	oral test
FEB II	5	III	Data collection & management Introduction	lecture method	Online resources	Class Test

Feb IV	5	III	sources of data - data collection & APIs. Exploring and finding data	PPT	Online resources	Class Test
Mar I	5	III	data storage & management	Youtube videos	E BOOKS	Oral test
II	5	III	using multiple data sources	Blackboard lecture method	PPT	Oral test
III	5	IV	Data Visualization: Intro-types of data visualization	PPT	study materials	Class Test
IV & I CA	5	IV	data types - data encodings - default variable.	lecture method	study materials	Class Test
Apr I	5	IV	mapping variable to encodings - hexad encoding.	lecture method	EBOOKS	Oral Test
II	5	V	Recent technologies - Recent trends in various data collection	PPT	online resources	Oral Test
III	5	V	Recent trends in Analysis techniques. Various visualization	Youtube videos	E BOOKS	class Test
IV	5	V	Techniques - Application development Methods	PPT	Online resources	Class Test

### LESSON PLAN

Academic Year : 2022-2023  
 Class : II B-SC C.S  
 Subject : Practical VIII : Python Programming  
 Hours / Week : 3  
 Credits : 2

Semester : IV  
 Class Code : 13  
 Subject Code : UCCSL20  
 Total Hours : 9  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Jan I	3	I	Introduction - Numbers and operators large integers - Hexadecimal & octal.	PPT	Online Resource	Class Test
II	3	I	variable - statements - function modular, list and tuples.	lecture method	EBOOKS	class Test
III	3	I	working with strings - single quoted strings - escaping quotes	Black Board Method	study materials	class Test
IV	3	II	concatenating strings - string representations, str and repr	PPT	Intro to computing using Python	class Test
Feb I	3	II	Input vs. raw-input - long strings - raw strings	Youtube videos	Ijubomir Pentovic	Class Test
Feb II & III	3	I	Dictionary uses - Creating and using dictionary - see dict function.	lecture method	Study materials	Class Test

Feb IV	5	II	String formatting - Dot methods loop - continue - else - break	Lecture method	Online Resource	Class Test
March I	3	III	File and dir - opening file - file mode - buffering - basic file method	Blackboard method	Introduction to computing using Python	Class Test
II	5	III	Reading & writing lines - iteration Reading Everything - GUI	Lecture method	Introduction to computing using Python	Class Test
III	3	IV	Program to implement calculator, Real Time	Demo session	Online Resource	Lab Test
IV X I CA	3	IV	Program to accept user's first & last name & print them in reverse order	Demo session	Online Resource	Lab Test
Apr 2	3	V	Iterate over dictionary program, combine list, unique function	Demo session	Online Resource	Class Test
III	3	V	Read first n lines of a file	Demo session	Online Resource	Class Test
IV	3	V	calculator, Turtle program.	Demo session	Online Resource	Lab Test
V	3	V	Revision			

### LESSON PLAN

Academic Year : 2022-2023  
 Class : III B Com (BXI)  
 Subject : Ecomm & Banking & Tally  
 Hours / Week : 3  
 Credits : 4

Semester : VI  
 Class Code : VCBIR120  
 Subject Code :  
 Total Hours : 3  
 Total Marks : 100

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Jan I	3	I	Contexts - elements - E-commerce in Indian Scenario	Lecture Method	Online Resource	Class Test
II	3	I	M-commerce - implementation of E-commerce	Blackboard Method	Study Material	Oral Test
III	3	II	Creation of Website	PPT	Study Material	Class Test
IV	3	II	Technology - constraints on implementation	Online Material	Online Resource	Oral Test
Feb I	3	III	Adv of E-commerce - Business Models	Blackboard Method	Study Material	Class Test
II	3	III	C2B, G2B E-Governance	Youtube Videos	Study Material	Class Test

Feb III IV	3	IV	Emerging trends in Banking E Banking	PPT	Online Resources	Class Test
MARCH I	3	IV	Centralized online Realtime Electronic Banking CORE	Lecture Method	Study material	Class Test
II	3	V	CBS, electronic clearing services EFT	Black board Lecture method	Study material	Oral Test
III	3	V	Realtime gross settlement NEFT	PPT	Online resources	Class Test
IV	3	V	Society for Worldwide Interbank financial telecommunication SWIFT	Lecture Method	Study Material	Oral Test

### LESSON PLAN

Academic Year : 2022-2023  
 Class : 2 BSC CS  
 Subject : EVS  
 Hours / Week : 2  
 Credits : 2

Semester : IV  
 Class Code : 18  
 Subject Code : UNEV520  
 Total Hours : 2  
 Total Marks : "

Proposed Week	No. of Hrs	Unit	Topics to be Covered	Teaching Methodology	Learning Resources	Methods of Evaluation
Part 2	2	2	Definition of Environment - scope & importance, components and segments	Lecture method	Study Material	Class Test
I	2	2	multidisciplinary nature of environmental studies	Chalk & Talk	Online resources	Class Test
II	2	3	Ecosystem - structure and function of eco, food chain & food web	Smart board	Study Material	Class Test
III	2	2	Pyramids - types of ecosystems energy flow in ecosystems	PPT	Online resources	Class Test
Part 2	2	IV	Biodiversity - types - threats conservation	Interactive Board	Study Material	Class Test
I	2	IV	Value of Biodiversity -	Online material	Online resources	Class Test



Feb 10 iv	2	iv	Environment pollution - Air Pollution, water, soil pollution	Lecture method	Study material	Class test
March I	2	iv	Rain water harvest - water shed management. Soil use	Smart Board	Online resources	Class test
ii	2	v	Human population & Environment Protection agencies	Chalk & talk	Online resources	Class test
iii	2	v	Global warming - climate change, ozone layer depletion	Lecture method	Study material	Class test
iv	2	v	Acid rain - population explosion Role of IT in Enviro conservation.	Smart Board	Study material	Class test
			April 20/21/23			