

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-III)

(July - 2020 to Oct-2021)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B. Voc. SY	Suchitra K. Kasbe	Computer Technology	U-OOP-431 Object Oriented Programming through C++	60

2. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Expected No. of Lectures	Date	Academic activities to be organized	No. of Test / Assignment with topic and date
1	<p>Unit-I: Introduction to OOPs and Basics of C++</p> <p>Need object oriented programming comparison of procedural and object oriented approach object classes polymorphism inheritance reusability data hiding and abstraction applications of OOPs Character Set, identifiers and keywords, data types, constants, variables and arrays, Operators and</p>	20	<p>13.07.2020 To 21.07.2020</p> <p>22.07.2020 To 30.07.2020 31.07.2020</p>	<p>PPT representation for basic concepts of oop</p>	--

	Expressions, Conditional Statements and Loops, Switch Statement		To 06.08.2020		
2	Unit-II: Functions, Classes and Objects defining a function accessing a function Passing arguments to a function specifying argument data types function prototypes recursion Class declaration constructors constructor initialization lists access functions private member functions the copy constructor the class destructor pointers to object static data members static function members friend function Operator Overloading overloading the assignment operator the this pointer overloading arithmetic operators overloading the arithmetic assignment operators overloading the relational operators overloading the increment and decrement operators overloading the subscript operator	20	07.08.2020 To 13.08.2020 14.08.2020 To 21.08.2020 22.08.2020 To 31.08.2020	Program Assignment	Activity based Unit Test-I
3	Unit-III: Inheritance and File Handling Introduction,	10	1.09.2020	PPT Presentation on Inheritance	--

	<p>inheritance protected class members overriding, Private access verses protected access virtual functions and polymorphism virtual destructors abstract base classes File Handling Classes for file stream operations opening and closing a file detecting end of file file modes file pointers and their manipulations sequential input and output operations random access file operations error handling command line arguments</p>		<p>To 4.09.2020</p> <p>5.09.2020 To 9.09.2020</p> <p>10.09.2020 To 11.09.2020</p>		
4	<p>Unit-IV: Templates and Exception Handling function templates class templates container classes subclass templates passing template classes to template parameters Exception Handling Introduction Exception Handling Mechanism Concept of throw & catch with example</p>	10	<p>12.09.2020 To 15.09.2020</p> <p>16.09.2020 To 30.09.2020</p> <p>30.09.2020 To 30.09.2020</p>	Class test	Unit Test II (MCQ)

Teacher

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Principal

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-V)

(July - 2020 to Oct-2020)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B. Voc. TY	Suchitra K. Kasbe	Computer Technology	U-FOSS-660 Free and Open Source Software	60

2. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Expected No. of Lectures	Date	Academic activities to be organized	No. of Test / Assignment with topic and date
1	<p>Unit-I</p> <p>Notion of Community–Guidelines for effectively working with FOSS community–, Benefits of Community based Software Development –Requirements for being open, free software, open source software –Four degrees of freedom – FOSS Licensing Models – FOSS Licenses – GPL- AGPL- LGPL – FDL – Implications – FOSS examples.</p>	15	<p>13.07.2020 To 17.07.2020</p> <p>18.07.2020 To 23.07.2020</p> <p>24.07.2020</p>	<p>PPT</p> <p>Presentation on Software Licensing Models</p>	--

	FOSS Operating System: Introduction to O.S, examples of FOSS operating system.		To 29.07.2020		
2	<p>Unit- II</p> <p>Linux Basic History of Linux, Comparison of Linux with Windows, Linux as Layered structure. Linux commands ls, rm, cp,cd, mkdir, mv, more, head, tail, pwd, chmod, tar, gzip, echo, date, cal, bc, cut, paste, sort command. grep with all options, man, info, ps, kill, fg,bg, redirection and pipe command. Linux Tree Structure, Creating user and assigning password, creating user defined command. Linux shell scripts vi Editor Basic Concepts, Shell Programming, Types of Shell, Environment Variables, Programming Construct: loops, conditions, logical operators, case constructs, if statement.</p> <p>Google Drive: Introduction, create an account, upload, download, delete and restore files in Google drive</p>	08	30.07.2020 To 03.08.2020	Assignment for Shell programs	Activity based Unit Test-I
		05	4.08.2020 To 8.08.2020		
			10.08.2020 To 15.08.2020		

3	<p>UNIT- III</p> <p>Google Docs:</p> <p>Introduction, Creating Your First Document, Naming the Document, Entering Text, Saving the Document, Introducing Formatting, Using the Formatting Toolbar, Printing a Document, Inserting Page Breaks, Checking Your Spelling, Choosing Your Print Settings, Exporting and Printing the Document, Deleting a Document, Formatting Document</p> <p>Formatting a Document, Using a Dictionary, Thesaurus, or Encyclopedia, Taking Your Docs to the Next Level: Lists, Tables, and Insertions, Working with Lists, Creating a List, Editing a List, Adding Tables to a Document, Creating a Table, Editing a Table, Inserting</p>	05	17.08.2020 To 20.08.2020	21.08.2020 To 26.08.2020	Create Google account and use Google Products
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<p>and Editing Images, Creating a Table of Contents, Editing a Table of Contents, Sharing a Document, Choose Sharers and Set Permissions</p> <p>Google Sheets: Introduction, Creating Google Sheets, Format Cells, Rows, Columns and Entire Worksheet, Editing, Printing, Working With Formulas And Functions, Creating Charts</p> <p>Google Forms: Introduction, Create A Google Form, Adding a Question, Adding Text, Adding an Image, Copying and Deleting Questions, Require a Response, Rearranging Questions and Images Question Types: Introduction, Short Answer, Paragraph, Multiple Choice, Checkboxes, Dropdown, File Upload, Linear Scale, Multiple Choice Grid, Checkbox Grid, Date and Time.</p>	<p>3</p>	<p>27.08.2020 To 5.09.2020</p>		
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	Form and Question Setting, Response Validation Changing Color and Backgrounds, Viewing Responses				
4	<p>Unit: IV</p> <p>Google Scholar: Introduction, Create a Profile, Adding The Paper in Library, Searching The Papers.</p> <p>Google sites: Introduction , Google Sites Setup, Create Your Site, Customize The Site and Update The Look Of Site, Create More Pages, Add Content to Your Pages, Review The Content Tips and Resources Review and Share.</p> <p>Google Slides: Introduction, Navigating Google Slides, Working With Templates And Existing Presentations, The Basics Of Creating Presentation, Applying Themes, Background, and Layouts To Slides, Entering , Editing And Formatting Text, Inserting Images on Slides,</p>	06	07.09.2020 To 12.09.2020		Unit Test II (MCQ)
		05	14.09.2020 To 18.09.2020	To create own video and update using OBS studio	

	<p>Adding Transitions, Animations and Videos.</p> <p>Introduction to OBS: Introduction, OBS Interface, OBS Setting, Creating a video.</p>	<p>04</p>	<p>19.09.2020 To 23.09.2020</p>		
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Teacher

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Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-V)

(July - 2020 to Oct-2020)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B. Voc. TY	Suchitra K. Kasbe	Computer Technology	U-MAP-663 Mobile Application Development	60 (Credit 4)

2. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Expected No. of Lectures	Date	Academic activities to be organized	No. of Test / Assignment with topic and date
1	Unit I Introduction Introduction to Mobile Programming, Overview of the Operating Systems used on different mobile devices, Introduction to Android Android History Android Features and Versions, Various IDE for Android, Installing Android Studio.	08 08	13.07.2020 To 17.07.2020 18.07.2020 To 31.07.2020	Identify the versions of android studio	--
2	Unit II Android Architecture Linux Kernal, Dalvik Virtual Machine,			Create the project and observe the working of	Activity based Unit Test-I

	Android Stack, Android applications structure, Creating a project, Working with the AndroidManifest.xml, Using the log system, Activities.	8 7	01.08.2020 To 08.08.2020 10.08.2020 To 18.08.2020	Androidmanifest.xml file	
3	Unit III : User Interface(UI) Architecture Application context, Intents, Activity life cycle, Supporting multiple screen sizes, Android Components, Android Application Structure, call Back Methods	05 12	19.08.2020 To 27.08.2020 28.08.2020 To 05.09.2020	--	--
4	Unit IV User Interface Widgets Text controls, Button controls, Toggle buttons, Images, Notification and Toast- Parameters on Intents, Pending intents, Status bar notifications, Toast notifications	7 8	07.09.2020 To 15.09.2020 16.09.2020 To 30.09.2020	Create a simple application using different controls	Unit Test II (MCQ)

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Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-I)

(July - 2020 to Oct-2020)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	M. Sc. (CS)FY	Suchitra K. Kasbe	Computer Science	P_DAM_130 Data Mining	60 (Credit 4)

2. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Expected No. of Lectures	Date	Academic activities to be organized	No. of Test / Assignment with topic and date
1	Unit I: Introduction to Data mining with related concepts Basic Data Mining Tasks, Data Mining Issues. Knowledge Discovery in Databases (KDD Process). OLTP system, Information Retrieval system, Decision Support Systems, Multidimensional Schemas, OLAP, Web Search Engines.	08 07	01.01.2021 To 9.01.2021 10.01.2021 To 19.01.2021	PPT representation on all unit	--
2	Unit II: Data Mining Techniques: Classification Data Mining Techniques: Classification -			PPT representation on all unit	Activity based Unit Test-I

	<p>Introduction to Data Mining Techniques. A statistical Perspective on Data Mining, Decision Trees, Neural Networks. Issues in Classification, Bayesian Classification, and Distance Based Algorithms,</p> <p>Decision Tree Based Algorithm: CART, Neural Network-Based Algorithm: NN Supervised Learning.</p>	7	20.01.2021 To 27.01.2021		
		8	29.01.2021 To 5.02.2021		
3	<p>Unit III: Clustering and Association Rules</p> <p>Clustering and Association Rules, Introduction to Clustering, Outliers, K-Means clustering, Nearest Neighbor Algorithm, BRICH algorithm. Introduction to Association Rules, Large Item sets,</p> <p>Basic Algorithms: Apriori Algorithm, Data Parallelism, Comparing Approaches.</p>	07	6.02.2021 To 13.02.2021	PPT representation on all unit	--
		08	14.02.2021 To 23.02.2021		
4	<p>Unit IV: Applications and Trends in Data Mining</p> <p>Data Mining Applications:</p> <p>Web mining, Image mining, Text mining, Spatial mining,</p>	8	24.02.2021 To 05.03.2021	PPT representation on all unit	Unit Test II (MCQ)

	Fraud Detection, CRM(Customer Relationship Management), Education, Health Care etc., Data Mining System Products.	7	6.03.2021 To 31.03.2021		
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	OS Introduction to DOS, Introduction to Windows, Structured Programming, What is OOPs? Basics of OOPs	06	28.08.2020 To 05.09.2020		
4	UNIT IV: Computer Networks and Introduction to Internet Definition of computer network Network types: LAN, MAN and WAN Network Topologies: Star, Ring, Hybrid Network Wireless Networks, Different Search Tools, Web Browsers, Definition, Uses of Internet Basic Services: Electronic mail, File Transfer Protocol, Telnet	5 5	07.09.2020 To 16.09.2020 18.09.2020 To 20.02.2021	PPT representation on all unit MCQ Quiz	Unit Test II (MCQ)

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Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-IV)

(March - 2021 to May-2021)

3. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B. Sc. SY	Suchitra K. Kasbe	Computer Technology	U_COS_443 Programming in Java	45

4. Summary of Lesson Plan

Unit	Topics To be Covered	Date	No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
Unit I	UNIT- I: An Introduction to Java	Total	12	Quiz Question Answer	
	Introduction to Object Oriented Programming, Basic concepts of OOPs, A Short History of Java, Features of Java, Difference between Java and C++, Java virtual machine (JVM), Java program structure, Java statement , Types of Comments, Keywords, Data Types , Variables and Constants, Operators, Output using println() method, Simple Java Program, Command Line Arguments.	1.03.2021 To 10.03.2021	4		
		15.03.2021 To 17.03.2021	4		
		22.03.2021 To 24.03.2021	4		

Unit II	Unit - II: Decision Making, Branching, Looping and Classes, Object and Methods	Total	13	Program Assignments	Activity Based Test on Unit I and Unit II 22 March to 27 March 2021
	Decision making statement, Simple if statement, if...else statement, Nesting of if...else, Switch statement, while statement, do statement, for statement. Introduction, defining a class, Adding variables, Adding Methods, Accessing Class Members, Constructors, Method Overloading, Static Members, Inheritance: Extending a class, Overriding Method	29.03.2021 To 31.03.2021	03		
		05.04.2021 To 19.04.2021	04		
		20.04.2021 To 27.04.2021	06		

Unit III	Unit -III: Arrays. Strings, Vectors and Creating and Using Packages	Total	10	Programs on packages and array	
	Introduction, One-dimensional Arrays: Creating an one dimensional array, Two-dimensional Arrays: Creating an two dimensional array, String Arrays, String Method Introduction, Java API package, Using system packages, Naming Conventions,	28.04.2021 To 5.04.2021	04		
	Creating Packages, Accessing a package, using a Package, Adding a class to a package	10.05.2021 To 17.05.2021	04		
		18.05.2021 To 19.05.2021	02		
Unit IV	Unit - IV: Exception Handling and Applet Programming	Total	10	Assignment for applet programs	MCQ UNIT Test II
	Dealing Errors, Catching exception and exception handling, create user defined exception. Applet Life Cycle, Applet HTML Tags, Passing parameters to Applet, repaint() and update() method	10.05.2021 To 17.05.2021	03		
		10.05.2021 To 17.05.2021	02		

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Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-II)

(March - 2021 to May-2021)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B. Sc. FY[II Sem]	Suchitra K. Kasbe	Computer Science	U_COS_242 Programming in C	45

2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
Unit I	UNIT- I Basics of C Language and Arrays Control Statements, Looping Statements, Introduction To Array Declaration And Initialization Of Arrays, Accessing Array Elements, Memory Representation Of Array, Arrays And Its Types, String Handling Functions.	Total	10	Some Programs on control and looping statements	
		10.03.2021 To 23.03.2021	5		
		24.03.2021 To 01.04.2021	5		

Unit II	UNIT- II Functions, Structure and Union	Total	15	Extra programs of functions	UNIT I Activity Based 22.03.2021 To 27.03.2021
	Introduction, Types of functions, Defining functions, Arguments Function prototype, Calling function, Returning function results	2.04.2021 To 12.04.2021	04		
	Call by value and call by reference, Recursion, Introduction to Structure	13.04.2021 To 21.04.2021	05		
	Declaration of structure, Accessing Structure Elements, How structure elements are stored? , Array of Structure, Introduction to Union, Declaration of Union Accessing Union Elements, How union elements are stored.	26.04.2021 To 5.05.2021	06		

Unit III	UNIT- III Storage Classes and Pointers	Total	10	Assignment on storage classes	
	Automatic storage class, Register storage class, Static storage class External storage class, Introduction to Pointers, Pointer declaration, initialization Dereferencing pointers, Pointer arithmetic, Pointer to pointer, Arrays and pointers.	10.05.2021 To 12.05.2021	04		
		17.05.2021 To 18.05.2021	03		
Unit IV	UNIT- IV File Management In C	Total	10	--	UNIT Test II 3.05.2021 To 11.05.2021
	Defining and opening a file - closing file I/O operations on files Error handling during I/O operations Random access to files Command line arguments	19.05.2021 To 24.05.2021	06		
		25.09.2020 To 26.05.2021	05		

Teacher

Head

Principal

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-IV)

(March - 2021 to May-2021)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B. Voc. (CT)SY	Suchitra K. Kasbe	Computer Technology	U_PRJ_527 Programming in Java	60 (Credit 4)

2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
Unit I	Unit 1: Introduction to Java programming		15		
	History of Java, Features of Java, Java Development Kit (JDK), Keywords, Comments, Data Types in Java, Primitive Data Types; Variables in Java; The main() Method of java, Saving, Compiling and Executing Java Programs.	10.03.2021 To 17.03.2021	05		
	Operators: Arithmetic Operators, Increment and Decrement Operators, Comparison Operators, Logical Operators, Operator Precedence. Control Flow Statements: if-else Statement, Switch	18.03.2021 To 24.03.2021		MCQ online Quiz on Unit I	

	Statement, for Loop, and while Loop, do...while loop, break Statement continue Statement. Arrays and Strings Arrays; Strings, String Operations, String Buffer.	25.03.2021 To 31.03.2021	04		
			06		
Unit II	Unit 2 : Object Oriented Concepts	Total	15		
	Class and Objects Class Fundamentals, Creating objects, Assigning object reference variables, Introducing Methods, Static methods, Constructors, Overloading constructors, this Keyword, Using Objects as Parameters, Argument passing, Returning objects, Method Overloading, Garbage Collection, The Finalize() Method	1.04.2021 To 10.04.2021	07	MCQ online Quiz on Unit II	Activity Based Test on Unit I and Unit II 22 March to 27 March 2021
	Inheritance and Polymorphism: Inheritance Basics, Access Control, Multilevel Inheritance, Method Overriding, Abstract Classes, Polymorphism, Final Keyword	15.04.2021 To 28.04.2021	08		

Unit III	Unit 3: Package, Interface and Exception Handling	Total	06		
	Packages Packages, Defining and using a Package Interface Interface, Defining an Interface, Uses of Interfaces, Interfaces versus Abstract Classes Exception Handling	29.04.2021 To 6.05.2021	04	MCQ online Quiz on Unit III	
	Definition of an Exception, Exception Classes, Common Exceptions, Exception Handling Techniques	7.05.2021 To 8.05.2021	02		
Unit IV	Unit 4: Applets, Event Handling, Swing, JDBC	Total	12		
	Applets What are Applets? The Applet Class, Life Cycle of an Applet Event Handling	12.05.2021 To 15.05.2021	04	MCQ online Quiz on Unit IV	Activity Based Test on Unit I and Unit II 3 May to 11 May 2021
	Components of an Event, Event Classes, Event Listener, EventHandling, Adapter Classes, Inner Classes Swing Concepts of Swing, Swing Packages and Classes, Working with Swing-	19.05.2021 To 22.05.2021	04		
	An Example, Swing Components Java Data Base Connectivity	26.05.2021 To 31.05.2021	04		

Teacher

Head

Principal

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-II)

(March - 2021 to May-2021)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	M. Sc. (CS)FY	Suchitra K. Kasbe	Computer Science	U_COD_226 Compiler Design	60 (Credit 4)

2. Summary of Lesson Plan

Unit	Topics To be Covered	Date	No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
Unit I	UNIT I: Introduction to Compilers and Programming Languages	Total	15	Assignment on lexical analysis	
	Compilers and translators, The structure of compiler, Compiler writing tools, Definition of P.L., High level Programming Languages.,	10.04.2021 To 17.04.2021	05		
	Lexical and syntactic structure of a language ,Data structures, Operators, Statements,	19.04.2021 To 22.04.2021	04		
	Lexical Analysis: Introduction to Lexical analysis, Role of a Lexical analyzer, A simple approach to the design of lexical analyzer, Regular expressions	23.04.2021 To 30.04.2021	06		

Unit II	UNIT II: Syntax Analysis and Basic Parsing Techniques	Total	15	MCQ Online Quiz on Unit II	Activity Based Test on unit I and Unit II 10 May 10 15 May
	Finite automata, minimizing number of states of a DFA, Implementation of a lexical analyzer	1.05.2021 To 8.05.2021	07		
	Context free grammars, Introduction to parsers, Shift reduce parsing, Top down parsing, Operator Precedence parsing, Predictive parsers	10.05.2021 To 18.05.2021	08		

Unit III	UNIT III: Syntax Directed Translation and symbol table	Total	15	MCQ Online Quiz on UNIT III	
	Introduction to Syntax directed Schemes, Implementation of Syntax directed translators, Intermediate code, Postfix notation and evaluation of postfix expressions, Parse trees and syntax trees, the contents of a symbol table, Data structures for a symbol table.	19.05.2021 To 25.05.2021	07		
		26.05.2021 To 3.06.2021	08		
Unit IV	UNIT IV: Error detection and recovery, Introduction to Code Optimization	Total	15	MCQ Online Quiz on UNIT III	UNIT TEST II on unit III and Unit IV 3 June 2021 to 11 June 2021
	Introduction to Errors, Lexical phase errors, Syntactic phase errors, Semantic errors, Sources of optimization, Loop optimization	4.06.2021 To 15.06.2021	07		
		16.06.2021 To 22.05.2021	08		

Teacher

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