

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Department of Computer Science

Teaching Plan (Semester-I, III, V)

(July – 2021 to Dec - 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	B. Voc. TY	Suchitra K. Kasbe	Computer Technology	U-FOSS-660 Free and Open Source Software	60
3	B. Voc. TY	Suchitra K. Kasbe	Computer Technology	U-MAP-663 Mobile Application Development	60
4	M..Sc. CS SY	Mrs. S. K. Kasbe	Computer Science	P-LIA-329 Linux Administration	60

Course Title: Object Oriented Programming through C++

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 OOPs and Basics of C++			PPT representation	--

	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 Expressions, Conditional Statements and Loops, Switch Statement	10	05(7).07.2021 1 To 23 .07.2021	for basic concepts of OOP	
		10	24.07.2021 To 11.08.2021		
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	10	12.08.2021 To 28.08.2021	Program Assignment	Unit Test-I
		10	01.08.2021 To 17.09.2021		
3	Unit-III: Inheritance and File Handling			PPT Presentation on Inheritance	--

	<p>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>	07	<p>To 31.08.2021</p> <p>10.08.2020 To 15.08.2020</p>		
3	<p>UNIT- III</p> <p>Google Docs: 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</p>	07	<p>03.09.2021 To 20.09.2021</p>		--

<p>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 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:</p> <p>Introduction, Creating Google Sheets, Format Cells, Rows, Columns and Entire Worksheet, Editing, Printing, Working With Formulas And Functions, Creating Charts</p> <p>Google Forms:</p> <p>Introduction, Create A Google Form, Adding a Question, Adding Text, Adding an Image, Copying and Deleting Questions, Require a Response,</p>	<p>04</p>	<p>21.09.2021 To 28.09.2021</p>	<p>Create Google account and use Google Products</p>	
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	<p>Rearranging Questions and Images</p> <p>Question Types: Introduction, Short Answer, Paragraph, Multiple Choice, Checkboxes, Dropdown, File Upload, Linear Scale, Multiple Choice Grid, Checkbox Grid, Date and Time. Form and Question Setting, Response Validation Changing Color and Backgrounds, Viewing Responses</p>	4	<p>01.10.2021</p> <p>To</p> <p>5.10.2021</p>		
4	<p>Unit: IV</p> <p>Google Scholar:</p> <p>Introduction, Create a Profile, Adding The Paper in Library, Searching The Papers.</p> <p>Google sites:</p> <p>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:</p> <p>Introduction, Navigating Google Slides, Working With Templates And Existing</p>	<p>08</p> <p>07</p>	<p>08.10.2021</p> <p>To</p> <p>23.10.2021</p> <p>24.10.2021</p> <p>To</p> <p>02.11.2021</p>		Unit Test II

	Presentations, The Basics Of Creating Presentation, Applying Themes, Background, and Layouts To Slides, Entering , Editing And Formatting Text, Inserting Images on Slides, Adding Transitions, Animations and Videos. Introduction to OBS: Introduction, OBS Interface, OBS Setting, Creating a video.	04	19.09.2020 To 02.11.2021	To create own video and update using OBS studio	
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Course Title: Mobile Application Development

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,	07 08	05.07.2021 To 15.07.2021 19.07.2021 To 03.08.2021	Identify the versions of android studio	--

	Installing Android Studio.				
2	Unit II: Android Architecture Linux Kernal, Dalvik Virtual Machine, Android Stack, Android applications structure, Creating a project, Working with the AndroidManifest.xml, Using the log system, Activities.	08 07	04.08.2021 To 18.08.2021 23.08.2021 To 02.09.2021	Create the project and observe the working of Androidmanifest.xml file	Unit Test-I
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	07 08	07.09.2021 To 20.09.2021 21.09.2021 To 05.10.2021	--	--
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	06.10.2021 To 18.10.2021 20.10.2021 To 02.11.2021	Create a simple application using different controls	Unit Test II

Course Title: Linux Administration

Sr. No.	Unit and Chapter to be covered	Expected No.	Date	Academic activities to	No. of Test / Assignment
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		of Lectures		be organized	with topic and date
1	<p>Unit-I Introduction to Linux and Linux Files and Directories</p> <p>Introducing Linux, Installing Red Hat Linux, Features of Linux, Basic Architecture of Linux system, features of Kernel and Shell. Linux File System - Boot block, Super block and Data blocks, how Unix/Linux kernel access files. The shell Scripts, Linux standard file system, Structure of file system, Essential Linux commands</p> <p>Listing, Displaying, and Printing Files</p> <p>Displaying Files: cat, less and more, Printing Files: lpr, lpq, and lprm</p> <p>Managing Directories: mkdir, rmdir, ls, cd, and pwd</p> <p>File and Directory Operations: find, cp, mv, rm, and ln Archiving and compressing files</p> <p>Filters and pipes: head, tail, wc, pr, cut, paste, sort, uniq, grep, egrep, fgrep, tee</p>	07	05.07.2021 To 15.07.2021	PPT presentation on directory structure and commands	--
2	<p>Unit-II: Managing Users and File system</p> <p>User Accounts, Managing Groups, Managing Users, Managing Passwords, Getting System Administrator Privileges to Regular Users , The User Login Process, Creating Users with the GUI</p>	8	02.08.2021 To 14.08.2021	PPT presentation on File System and managing Users	Unit Test-I

	<p>tools, Disk Quotas, Communicating with users, The chroot command.</p> <p>File System Hierarchy standard: Root Directory, System Directories, Program Directories, Mounting File Systems automatically: /etc/fstab</p> <p>Mounting File Systems Manually: mount and unmount Converting an existing ext2 Filesystem to ext3</p> <p>Creating a File systems: mkfs, mke2fs, mkswap, parted and fdisk, Relocating a File System</p>	7	16.08.2021 To 28.08.2021		
3	<p>Unit-III: Backing Up, Recovery and Printing with Linux</p> <p>Choosing a Backup Strategy, Choosing a Backup Hardware and Media, Using Backup Software, Copying Files, deleting Files, System Recovery</p> <p>Overview of Linux Printing, Configuring and Managing Print Services, Creating and Configuring Local Printers, Creating Network Printers, Console Print Control, Using the Common UNIX Printing System (CUPS) GUI</p>	07	30.08.2021 To 14.09.2021	--	--
		08	15.09.2021 To 27.09.2021		
4	<p>UNIT IV: Network Connectivity and Managing DNS</p> <p>Networking with TCP/IP , Network Organization, Hardware Devices for Networking , Using Network Configuration Tools , Dynamic Host Configuration Protocol ,</p>	7	28.09.2021 To 18.10.2021 20.10.2021	PPT presentation on Network connectivity	Unit Test II

Using the Network File System, Putting Samba to work Managing DNS Configuring DNS, Essential DNS concept , Overview of DNS Tools, Configuring Name servers with BIND, providing DNS for Real Domain.	8	To 02.11.2021		
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Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Department of Computer Science

Teaching Plan (Semester-II, IV, VI)

(Dec - 2021 to April -2022)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	M. Sc. (C.S)SY	Suchitra K. Kasbe	Computer Science	P-SFC-428 Soft Computing	60
2	B. Sc. SY	Suchitra K. Kasbe	Computer Science	U-COS-443 Programming in Java	45
3	B. Voc. (CT) SY	Suchitra K. Kasbe	Computer Technology	U_PRJ_527 Java Programming	60

Course Title: Soft Computing

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 Fuzzy Logic				

	<p>Crisp Sets: An Overview, Fuzzy Sets: Basic Types, Fuzzy Sets: Basic Concepts, Fuzzy Sets Vs Crisp Sets, Additional Properties of alpha cuts, Presentation of fuzzy sets, Extension principle for fuzzy sets.</p> <p>Operations on fuzzy sets Fuzzy complements, Fuzzy Union, Fuzzy Intersections, Crisp & Fuzzy Relation, Binary Fuzzy Relation, Binary Relation on single set, Fuzzy Equivalence Relations, Fuzzy Compatibility Relation.</p>	<p>10</p> <p>07</p>	<p>17.12.2021 To 28.12.2021</p> <p>29.12.2021 To 05.01.2022</p>	<p>PPT representation for Operations of Fuzzy Sets</p>	
2	<p>UNIT II Introduction to Neural Networks</p> <p>Introduction to Neural Networks Biological Neuron and their Artificial Neuron, McCulloch-Pits Neuron Model, Perceptron Classification, Linearly Separability, NOR Problem, Overview of Neural Network Architecture, Learning Rules-Supervised Learning Unsupervised Learning - Perceptron Learning- Reinforcement Learning -Delta Learning Rule</p>	<p>10</p> <p>08</p>	<p>06.01.2022 To 18.01.2022</p> <p>19.01.2022 To 28.01.2022</p>	<p>Assignment</p>	<p>Unit Test-I</p>
3	<p>UNIT III: Multilayer Feed forward Network</p> <p>Generalized Delta Learning, Back propagations training algorithm and derivation of weight,</p>	<p>10</p>	<p>29.01.2022 To 09.02.2022</p>	<p>PPT Presentation Back Propagation algorithm</p>	

	Variant in Back propagations, Radial Basis Function (RBF), Application of BP and RBF N/W	07	10.02.2022 To 17.02.2022		
4	UNIT IV: Recurrent Network and Neuro Fuzzy System Hopfield Network, Counter propagation networks, Boltzmann Machine, Adaptive Resonance theory (ART). Fuzzy System, Neuro Fuzzy System and Applications Fuzzy neurons, Fuzzy Neural Network, Fuzzy associative memory, Application in Pattern Recognition, Character, Face, Finger, Palm, Iris Recognitions, Application in Expert System Revision seminar	10 08	17.02.2022 To 03.03.2022 04.03.2022 To 12.03.2022 12.03.2022 To 30.03.2022 01.04.2022 To 16.04.2022	Class test	Unit Test II

Course Title: Programming in Java

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: An Introduction to Java</p> <p>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.</p>	<p>06</p> <p>06</p>	<p>20(17).12.2021 To 29.12.2021</p> <p>03.01.2022 To 12.01.2022</p>	<p>PPT Presentation on Features of Java</p>	<p>--</p>
2	<p>Unit - II: Decision Making, Branching, Looping and Classes, Object and Methods</p> <p>Decision making statement, Simple if statement, if...else statement, Nesting of</p>	<p>06</p>	<p>17.01.2022 To 31.01.2022</p>	<p>Program Assignments</p>	<p>Unit Test-I</p>

	<p>if...else, Switch statement, while statement, do statement, for statement.</p> <p>Introduction, defining a class, Adding variables, Adding Methods, Accessing Class Members, Constructors, Method Overloading, Static Members, Inheritance: Extending a class, Overriding Method</p>	07	01.02.20 22 To 21.02.20 22		
3	<p>Unit -III: Arrays. Strings, Vectors and Creating and Using Packages</p> <p>Introduction, One-dimensional Arrays: Creating an one dimensional array, Two-dimensional Arrays: Creating an two dimensional array, String Arrays, String Method</p> <p>Introduction, Java API package, Using system packages, Naming Conventions, Creating Packages, Accessing a package, using a Package, Adding a</p>	05 05	<p>22.02.2022 To 02.03.2022</p> <p>07.03.2022 To 15.03.2022</p>	Assignment on packages	--

	class to a package				
4	Unit – IV: Exception Handling and Applet Programming Dealing Errors, Catching exception and exception handling, create user defined exception. Applet Life Cycle, Applet HTML Tags, Passing parameters to Applet, repaint() and update()	05 05	16.03.2022 To 30.03.2022 30.03.2022 To 13.04.2022	Assignment on Exception handling	Unit Test II

Course Title: Java Programming

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 1: Introduction to Java programming 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,	07	17.12.2021 To 29.12.2021	Program Assignments on control statements and looping statements	--

	Collection, The Finalize() Method Inheritance and Polymorphism: Inheritance Basics, Access Control, Multilevel Inheritance, Method Overriding, Abstract Classes, Polymorphism, Final Keyword				
3	Unit 3: Package, Interface and Exception Handling Packages Packages, Defining and using a Package Interface Interface, Defining an Interface, Uses of Interfaces, Interfaces versus Abstract Classes Exception Handling Definition of an Exception, Exception Classes, Common Exceptions, Exception Handling Techniques	07 08	11.02.2 022 To 24.02.2 022 25.02.2022 To 11.03.2022	Assignments on packages	--
4	Unit 4: Applets, Event Handling, Swing, JDBC Applets What are Applets? The Applet Class, Life Cycle of an Applet Event Handling Components of an Event, Event Classes, Event	7 8	12.03.2022 To 25.03.2022 26.03.2022To 16.03.2022	Assignments on Swing programs	Unit Test II

	Listener, EventHandling, Adapter Classes, Inner Classes Swing Concepts of Swing, Swing Packages and Classes, Working with Swing- An Example, Swing Components Java Data Base Connectivity				
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Teacher

Head

Principal