

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-III)

(June - 2018 to Oct-2018)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B. C. A. SY	Suchitra K. Kasbe	Computer Science and IT	U-OOP-390 Object Oriented Programming Using C++	45

2. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Date	Expected No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
Unit I	UNIT-I : Introduction to Object Oriented Programming 1. Getting Started: Introduction, A brief history of C++, Advantages of OOP - Usage of OOP and C++ Variable, constant, Expression, Statements, Comments and keywords of C++ 2. Operator: Arithmetic, Relational, Logical, Assignment, Increment/Decrement, Conditional, Precedence of Operators. Data type, Type Conversion, library function. 3. Input / Output Statements:	Total	13		
		25.06.2018 To 07.07.2018	06		
		08.07.2018 To 31.07.2018	05	Assignment Questions on Operators Advantages of OOP	

	Inputting using cin and outputting using cout statements. Preprocessor directives. Basic program construction.				
Unit II	UNIT-II :Array , control and Looping Statement	Total	10		
	4. Decision Making and Looping Statement: If Statement, If..else statement, nesting of if statement, Switch statement, conditional operator statement. While loop, Do loop, For loop, nesting of loops, break and continue statement, go to statement.	01.08.2018 To 16.08.2019	05	Program Assignment on Arrays	UNIT TEST I ACTIVITY BASED TEST 14.09.2018 to 30.09.2018
	5. Arrays: Defining an array Array type, array elements Accessing and averaging array elements, initializing array. Programming of C++ with array. String handling, array of strings.	18.08.2018 To 31.08.2018	05		
Unit III	UNIT-III : Introduction to Class and Functions	Total	12		
	6. Functions: What is a function?, Declaring and defining function. Local, global variables, execution of function. Passing argument to function, Return values. Reference arguments.	1.09.2018 To 15.09.2018	06	Program Assignments on class and object PPT on class and object	
	Overloading functions. Inline function and default parameter.	17.09.2018 To 25.09.2018	06		

	7. Object Oriented Programming: Objects & Classes. Constructor & Destructor. Operator overloading. Overloading unary operators. Overloading binary operators.				
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	UNIT IV : Inheritance and Polymorphism	Total	10		
Unit IV	8. Inheritance: Derived class and Base Class. Derived Class Constructors. Overriding member functions. Inheritance in the English distances class, class hierarchies. Public and Private Inheritance. Level of inheritance.	26.09.2018 To 29.09.2018	05	PPT on Polymorphism and Inheritance	UNIT TEST II MCQ TEST 07.10.2018 To 22.10.2018
	9. Polymorphism: Problems with single inheritance. Multiple inheritances.	1.09.2018 To 03.10.2018	05		

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3. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B. Sc. C.S. SY	Suchitra K. Kasbe	Computer	U-OOP-382 Object Oriented Programming Using C++	45

4. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Date	Expected No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
Unit I	UNIT- I: Introduction to Object Oriented Programming 1. Principles of Object Oriented Programming (OOP) Evolution of C++ - Programming Paradigms - Key Concepts of OOP - Advantages of OOP - Usage of OOP and C++ .Input and Output in C++- Streams- Stream classes Unformatted console I/O operations- Member functions of istream class-manipulators- manipulators with parameters 2. Introduction to C++ Tokens, Keywords, Identifiers, Variables, Operators,	Total	10	Assignments on basic concepts of OOP and I/O statements	
		27.06.2018 To 07.07.2018	06		
		09.07.2018 To 20.07.2018	05		

	Expressions and Control Structures: If,If. Else, Switch – Repetitive Statements- for, while, do..while - Pointers and arrays				
Unit II	UNIT II: Class, Functions and Constructors	Total	11	Program Assignments	UNIT TEST I ACTIVITY BASED TEST 14.09.2018 to 30.09.2018
	3. Structures and Unions: Declaration of structures, Accessing structure members, Structure Initialization, Arrays of structure, nested structures, structure with pointers, functions & structures, Unions, Structure/Union Versus Class in C++.	23.08.2018 To 28.08.2019	05		
	4. Class Declaration Data Members, Member Functions, Private and Public Members, Data Hiding and Encapsulation, Array within a class.	30.08.2018 To 04.08.2018	04		
	5. Class Function Definition Member Function definition inside the class and outside the class, Friend Function, Inline Function, Static Members & Functions, Scope Resolution Operator, Private and Public Member Functions, Nesting of Member Functions. Creating Objects, Accessing class data members, Accessing member	6.08.2018 To 21.08.2018	12		

	<p>functions, Arrays of Objects, Objects as function arguments: Pass by value, Pass by reference, Pointers to Objects.</p> <p>6. Constructors and Destructors Declaration and Definition, Default Constructors, Parameterized Constructors, Constructor Overloading, Copy Constructors. Destructors: Definition and use.</p>				
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Unit III	UNIT III: Inheritance and Overloading	Total	14	PPT on Inheritance	
	7. Inheritance Extending Classes, Concept of inheritance, Base class, Derived class, Defining derived classes, Visibility modes : Private, public, protected; Single inheritance : Privately derived, Publicly derived; Making a protected member inheritable, Access Control to private and protected members by member functions of a derived class, Multilevel inheritance, Nesting of classes. 8. Function Overloading & Operator Overloading Binary & Unary	23.08.2018 To 30.08.2018	07		
		31.08.2018 To 7.09.2018	07		
		Total	10		UNIT TEST II

Unit IV	UNIT IV: Polymorphism and file operations 9. Polymorphism Definition, early Binding, Polymorphism with pointers, Virtual Functions, late binding, pure virtual functions.	08.09.2018 To 15.09.2018	05	PPT on polymorphism	MCQ TEST 07.10.2018 To 22.10.2018
	10. Working with files Header file, redirection, Classes for File Stream Operations - Opening and Closing a File - End-of File Detection - file input and output. File Pointers - Updating a File - Error Handling during File Operations - Command-line Arguments, buffers & iostreams	17.09.2018 To 03.10.2018	05		

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Teaching Plan (Semester-II)

(Nov - 2018 to March-2019)

5. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B. Sc. FY	Suchitra K. Kasbe	Computer Science	U-COS-242 Programming in C	45

6. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Date	Expected 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	Total	12	PPTs on control and looping statements, 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.	29.11.2018 To 15.12.2018	5		
		16.12.2018 To 26.12.2018	5		
Unit II	UNIT- II Functions, Structure and Union	Total	15	Program Assignments on Functions, Structure and Union	UNIT TEST I ACTIVITY BASED TEST
	Introduction, Types of functions, Defining functions, Arguments Function prototype, Calling function, Returning function results Call by value and call by reference, Recursion, Introduction to Structure Declaration of structure,	31.12.2018 To 8.01.2019	04		
		9.01.2019 To 21.01.2019	05		

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.	22.01.2019 To 30.01.2019	06		
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Unit III	UNIT- III Storage Classes and Pointers	Total	10	PPTs on storage classes and pointer	UNIT TEST II
	Automatic storage class, Register storage class, Static storage class	04.01.2019 To 12.01.2021	05		
	External storage class, Introduction to Pointers, Pointer declaration, initialization Dereferencing pointers, Pointer arithmetic, Pointer to pointer, Arrays and pointers.	13.05.2021 To 27.02.2019	05		
Unit IV	UNIT- IV File Management In C	Total	10	Assignment on file handling	UNIT TEST II
	Defining and opening a file - closing file I/O operations on files	5.03.2019 To 14.03.2019	06		
	Error handling during I/O operations Random access to files Command line arguments	15.09.2021 To 20.03.2019	05		

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-VI)

(Nov - 2018 to March-2019)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B. Sc. C.S. TY	Suchitra K. Kasbe	Computer Science and IT	U-COG-689 Computer Graphics	45

2. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Date	Expected No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
Unit I	Unit- I 1. Introduction to Computer Graphics	Total	18	PPTs on computer graphics devices and algorithms	
	1.1 Introduction 1.2 Advantages of computer graphics 1.3 Application of computer graphics 1.4 Co-ordinate system: Cartesian and Polar 1.5 Display devices: Cathode Ray Tubes, Color CRT monitors	29.11.2018 To 09.12.2018	09		
	1.6 Direct View Storage Tube, Plotter, Light pen, Joystick	10.12.2018 To 20.12.2018	09		
	2. Raster Scan Graphics 2.1 Line segment and line drawing algorithm 2.2 Digital differential Algorithm 2.3 Bresenham's line algorithm	Total	19		UNIT TEST I

Unit II	Unit – II 3. Transformation 3.1 Two dimensional transformation 3.2 Matrix representation 3.3 Transformation: Translation, Rotation, Scaling, Reflection, Shear	21.12.2018 To 8.01.2019	09	Assignment on Scaling, Traslation and Rotation	ACTIVITY BASED TEST
	4. Segmented Display Files 4.1 Segment table 4.2 Functions for segmenting display file 4.3 Posting & unposting segments 4.4 Segment naming scheme 4.5 Default error conditions 4.6 Appending to segments	22.01.2019 To 18.01.2019	10		

Unit III	Unit – III	Total	16	PPTs on Windowing Transformat ion and clipping algorithm	
	5 . Clipping & Windowing 5.1 Viewing transformation 5.2 2-D clipping 5.3 End point codes 5.4 Midpoint subdivision algorithm, 5.5 Polygon clipping algorithm (Sutherland-Hodgman algorithm)	29.01.2019 To 06.02.2021	08		
	5.6 Windowing transformation 6 Display File Compilations 6.1 Display file compiler 6.2 Refresh concurrent with reconstruction 6.3 Free storage allocation 6.4 Display file structure	07.05.2021 To 16.02.2019	08		

Rajarshi Shahu Mahavidyalaya, (Autonomous), Latur

Teaching Plan (Semester-IV)

(Nov - 2018 to March-2019)

1. Details of Classes to be taught

Sr. No.	Class	Name of Asst. Prof.	Subject	Paper	Total Lecturers:
1	B. Sc. C.S. SY	Suchitra K. Kasbe	Computer Science and IT	U-ADJ-482 Advance Java	45

2. Summary of Lesson Plan

Sr. No.	Unit and Chapter to be covered	Date	Expected No. of Lectures	Academic activities to be organized	No. of Test / Assignment with topic and date
Unit I	Unit I 1. Introduction to AWT:	Total	18	PPTs on awt classes	
	Working with windows, Graphics Text 1.1AWT Classes 1.2Windows Fundamentals 1.3Working with Frame window 1.4Working with Graphics 1.5Working with Colors & Fonts 2. Swing Components 2.1 Icons & Labels Button & Label, TextField & Buttons 2.2 CheckBoxes, Radio buttons 2.3 Combo Box & Lists 2.4 Scroll panes 2.5 Trees 2.6 Tables 2.7 Menu Bars & Menus	29.11.2018 To 09.12.2018	09		
		10.12.2018 To 20.12.2018	09		
Unit II	Unit-II 3. Networking	Total	20		
	3.1 The java.net package 3.2 Connection oriented transmission – Stream Socket Class 3.3 Creating a Socket to a	21.12.2018 To 8.01.2019	10		

<p>remote host on a port (creating TCP client and server) 3.4 Simple Socket Program Example 3.5 Programs on chatting 1-1 . 4. JDBC 4.1 The design of JDBC 4.2 Basic JDBC Concept 4.3 Drivers 4.4 Making the Connection, Statement 4.5 Executing SQL commands 4.6 Executing queries 4.7 Scrollable and updatable result sets 4.8 Metadata, transactions</p>	<p>22.01.2019 To 19.01.2019</p>	<p>10</p>	<p>Programmin g assignments on JDBC</p>	<p>UNIT TEST I ACTIVITY BASED TEST</p>
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Unit III	Unit-III 5. Servlet	Total	17	PPTs on servlet and JSP	
	5.1 Introduction 5.2 Life cycle of servlet 5.3 Handling HTTP Get Request 5.4 Handling HTTP Post Request 6. Introduction to JSP	29.01.2019 To 06.02.2019	08		
	6.1 Getting Familiar with JSP Server 6.2 First JSP 6.3 Adding Dynamic contents via expressions 6.4 Scriptlets, Mixing Scriptlets and HTML 6.5 Directives, Declaration, Tags and Session	07.05.2019 To 18.02.2019	09		
Unit IV	Unit-IV 7. Introduction to Java Beans & Hibernate	Total	24	Assignment on java bean	UNIT TEST II
	7.1 What is bean 7.2 Advantages	20.02.2019 To 01.03.2019	12		
	7.3 The bean-writing process 7.4 Introduction to jar and manifest files 7.5 The java beans API 7.6 Overview Of hibernate 7.7 Hibernate Architecture	02.09.2021 To 21.03.2019	12		

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