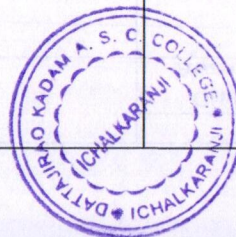# Dattajirao Kadam Arts, Science and commerce College, Ichalkaranji
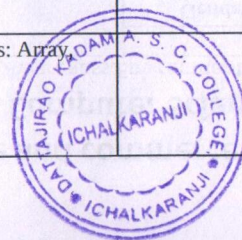## DEPARTMENT OF B.Sc. Computer Science (2022-23)
Details of Cross Details of Cross Cutting Issues relevant with Gender Awareness,Environmental Awareness,Professional Ethics and Human Values
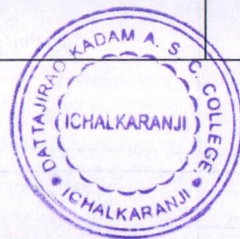
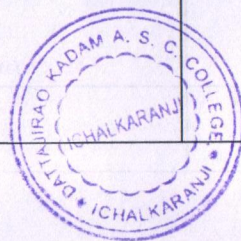| Sr. No. | Name of the Course | Title of Paper | Sem. | Name of the Unit | Details of Cross Cutting Issues relevant with | | | |
					Gender Awareness	Environmental Awareness	Professional Ethics	Human Values
1	B.Sc.-I	Problem Solving using Computers	I	Problem Solving Using Computers			• History of Computers • Types of Computers	•Computers enable global communication •Unparalleled access to knowledge
				Control Structures and Arrays			• Types of Loops •Types of Array	•Attention to Detail and Precision •Efficiency and Scalability
2	B.Sc.-I	Database Management System	I	Introduction to Database Management Systems			•Basic Concepts of Database •Structure of DBMS	•Accurate and reliable data management •Secure and private data protection
				Entity Relationship and Enhanced ER Modeling			•Entity Relationships •Entities	•Pay attention to detail •Respect the complexity of data and relationships
3	B.Sc.-I	Programming Skills Using 'C'	II	Pointers and Functions			• Types of Loops •Types of Array	•Memory Management and Responsibility •Attention to Detail and Precision
				Structures and File Handling			•Structure •File Opening Mode	•Respect for Data •Continuous Learning and Improvement
4	B.Sc.-I	Relational Database Management System	II	Relational Data Model			•Being accountable for decisions made using data and ensuring transparency. •Transparency in Data Methods and Assumptions	•Ensuring accurate and truthful data representation and querying. •Responsibility for Data Impact and Consequences.
				Database design			•Data Integrity and Accuracy. •Data Security and Confidentiality	•Integrity in Data Representation and Querying. •Ensure integrity and accountability in data management
				Introduction to PHP Scripting			•Introduction •User Defined Functions	•Write accurate and precise PHP code •Develop problem-solving and resourcefulness skills

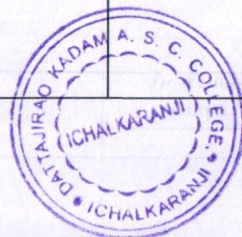| Sr. No.	Name of the Course	Title of Paper	Sem.	Name of the Unit	Details of Cross Cutting Issues relevant with			
					Gender Awareness	Environmental Awareness	Professional Ethics	Human Values
5	B.Sc.-II	PHP and MySQL	III				●Forms ●MySql Database	●Providing clear communication and feedback in HTML forms. ●Ensuring data integrity and security in MySQL connectivity.
				HTML, HTML forms and MySql connectivity				
6	B.Sc.-II	Object Oriented Programming Using C++	III	Introduction to C++ and Basics of Object oriented Programming			●Object Oriented programming Concepts ●Functions	●Striving for efficiency and performance in C++ coding. ●Promoting reusability and abstraction in code design.
				Object Oriented Programming			●Class ●Constructor	●Facilitating easier maintenance and evolution of software systems. ●Assigning clear responsibilities to classes and methods.
7	B.SC-II	Cyber Security Essentials-I	IV	Information Security Management			●Types of Attacks ●Security Policy	●Building trust with employees and customers through robust security practices. ●Respecting users' personal information and privacy.
				Network Security, Access Controls, Cyber Security and Cyber Laws			●Wireless Network Security ●Cyber Security Laws	●Individuals and organizations can foster a culture of security awareness, responsibility, and continuous improvement. ●Leads to more effective Network Security, Access Controls, Cyber Security, and Cyber Law practices.
8	B.Sc.-II	Data Structure Using C++	IV	Introduction to Data structure & Linear Data Structures: Array, Stack and Queue			●Stack and It's operations ●Stack and It's operations	●Ordered and disciplined data processing ●Efficient and productive data management

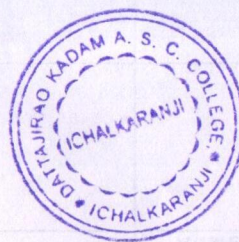| Sr. No.	Name of the Course	Title of Paper	Sem.	Name of the Unit	Details of Cross Cutting Issues relevant with			
					Gender Awareness	Environmental Awareness	Professional Ethics	Human Values
				Non Linear Data Structures: Linked List and Trees			•Implementation of Linked List •Trees and It's Types	•Connected and interdependent data structures •Flexible and adaptable data handling
9	B.Sc.-III	Core Java	V	Introduction to java			•Object-Oriented Programming using Java •Memory Management	•Ensuring secure coding practices and data protection. •Staying updated with new Java features and advancements.
				Object Oriented Programming using Java			•Types of inheritance •Types of Polymorphism	•Developers can create robust, flexible, and maintainable software solutions. •Focusing on essential features and hiding non-essential details
				Multithreading, Exception Handling and Applets			•Introduction of Exception •Thread Life Cycle	•Gracefully handling unexpected errors and exceptions. •Prioritizing maintainable, readable, and efficient code
10	B.Sc.-III	C# Programming	V	Introduction to .Net			•.NET Framework Architecture •Components of .NET	•Ensuring high-quality, reliable, and maintainable code in .Net development. •Encouraging innovative problem-solving and creativity in .Net development.
				Object oriented Concepts			•Classes and Objects •Inheritance and Polymorphism	•Assigning clear responsibilities to classes and methods. •Promote efficiency and reusability through inheritance.

Sr. No.	Name of the Course	Title of Paper	Sem.	Name of the Unit	Details of Cross Cutting Issues relevant with			
					Gender Awareness	Environmental Awareness	Professional Ethics	Human Values
				Introduction to Windows Form Application Using C#			●IDE ●Form Controls	●Providing clear documentation and effective communication for Windows Form development. ●Making ethical decisions in Windows Form development, considering the impact on users and society.
11	B.Sc.-III	LINUX Part I	V	Introduction to Linux			●Architecture of Linux ●General Purpose Utilities	●Prioritizing security and privacy in Linux system administration and development. ●Ensuring transparency and accountability in Linux system configuration and management.
				File System, System Calls and Process			●File and Directory Manipulation commands ●Process Management	●Prioritizing data backup and recovery in file system management. ●Foster reliable inter-process communication and synchronization
				Editors and Shell Scripting			●Editing Text Files ●Modes of Operation	●Thoroughly handling errors and debugging scripts. ●Protecting sensitive information and maintaining privacy in editing.
12	B.Sc.-III	Python Part I	V	Introduction and Conditional Statements & Looping			●Working with Python ●Conditional Statements & Looping	●Take responsibility for coding decisions and actions ●Value attention to detail, precision, and thoroughness
				String Manipulation and Lists			●String Manipulation ●Lists	●Develop efficient and optimized list operations ●Value organization and structure in data management

Sr. No.	Name of the Course	Title of Paper	Sem.	Name of the Unit	Details of Cross Cutting Issues relevant with			
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				Tuples and Dictionaries			•Tuple •Dictionaries	•Value order, structure, and organization in data representation •Promote immutability, integrity, and flexibility in data storage
13	B.Sc.-III	Advanced Java	VI	Swing and JDBC			•Components of AWT •Components of Swing	•Providing a simple and intuitive API for GUI development. •Providing clear and timely feedback to users through UI components
				Servlet			•Servlet API •Handling a data from HTML to servlet	•Taking responsibility for handling requests and responses. •Encouraging reusable and modular code.
				Java Server Page (JSP)			•Life cycle of JSP •Connecting to database	•Develop user-friendly and intuitive web interfaces •Promote continuous learning and improvement in JSP development
14	B.Sc.-III	ASP .NET	VI	Introduction to ASP.Net			•Client side and Server side programming. •Server Controls	•Promote adaptability and flexibility in web development •Encourage open communication and feedback
				Asp.Net State Management			•Response.Redirect •Session, Application	•Manage application state with responsibility and accountability •Implement organized and structured state management
				Database and ADO.Net			•Connected and •Disconnected Architecture Data binding using ADO.net	•Optimizing data access and manipulation for better performance. •Ensuring consistent and reliable data access and manipulation

Sr. No.	Name of the Course	Title of Paper	Sem.	Name of the Unit	Details of Cross Cutting Issues relevant with			
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15	B.Sc.-III	Linux Part- II	IV	Memory Management and Advanced vi			●Demand Paging ●ex Mode- handling Multiple Files	●Edit text with creativity and precision ●Manage memory with efficiency and responsibility
				Filters and Advanced Shell Programming			●sed and sed options ●grep and grep options	●Write clear and simple shell scripts ●Continuously learn and improve shell scripting skills
				Networking Tools			●Introduction to TCP/IP ●Network Management Tools-Firewall	●Take accountability and responsibility for networking practices ●Promote innovation and continuous improvement in networking tools
16	B.Sc.-III	Python Part -II	IV	Functions			●Types of functions ●Function Arguments	●Develop clear, simple, and consistent functions ●Write modular, reusable, and efficient code
				Modules and Input-Output			● Creating Modules ●Types of I/O Files	● Sharing data through file I/O for collaboration. ● Designing visually appealing GUI for engagement.
				Exception Handling, Object Oriented Programming Concepts			●User Defined Exceptions ●Data hiding	●Proactively preventing and mitigating potential errors. ●Continuously learn and improve error handling and OOP practices

(Mr. Akshay Swami)

for **HEAD,**
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