## Shri swami Vivekanand Shikshan Sanstha's Vivekanand College (An Empowered Autonomous), Kolhapur Department of MCA

Curriculum relevance: Course outcomes with relevance to Local, Regional, National Global needs (PG) 2024-25 to 2025-26

Sr.	Course Code	<b>Course Title</b>	Year of	CO's with relevance to	CO's with relevance to	CO's with relevance to global needs
No.			Introduction	local /regional needs	national needs	
1	DSC36DST11	Data Structure using C++	2024-25	CO1: Examine the effects that algorithm design techniques and data structure selection have on program performance.	CO2: Determine the best data structure and algorithm for a certain application. CO3 Programs are designed utilizing object-oriented ideas.	CO4: Resolve problems using data structures such as linear lists, stacks, queues, hash tables, binary trees, heaps, tournament trees, binary search trees, and graphs and writing programs for these solutions.
2	DSC36DBM11	Database Management System	2024-25	CO1: Understand relational database management systems' basic components.	CO2:Sketch and explain the basic concepts of relational data model, entity-relationship model, and relational database design	CO4: Recognize the use of normalization and functional dependency in database design.
3	DSC36CNW11	Computer Networks	2024-25	CO1:Elaborates in detail the fundamental ideas, OSI reference model, working and role of each layer of OSI model and TCP/IP, networks devices and transmission media, Analog, and digital data transmission	CO2: Put in application (Apply) of channel allocation, framing, error, and flow control techniques.	CO4: Explain the many functions of the transport layer, such as flow control, error control, port addressing, and connection management.
4	DSC36OSA11	Advance Operating System	2024-25	CO1:Describe the different operating system characteristics and ideas	CO2: Examine the features and attributes of different operating systems. CO3: Put into practice the CPU, memory, and disc scheduling algorithms.	CO3: Put into practice the CPU, memory, and disc scheduling algorithms.

5	DSC36CYS11	Cyber Security	2024-25	CO1: Exhibit organization. knowledge to secure corrupted systems, protect personal data, and secure computer networks in	CO2: Implementation with an expertise in academics to design and implement security solutions. CO3: Acknowledge key terms and concepts in Cryptography, Governance and Compliance.	CO4: Acknowledge principles of web security and to guarantee a secure network by monitoring and analysing the nature of attacks through cyber/computer forensics software/tools.
6	DSC36OOP21	Object Oriented Programming with Python	2024-25	CO1: To Learn Basic Syntax of Python Programming.	CO2: To understand and implement concepts of object-oriented methodology using Python.	CO4: To develop problem solving skills and their implementation through Python
7	DSC36WEB21	Advance Web Technology	2024-25	CO1: Understand the basics of web design	CO2: Develop ASP.NET application CO3: Utilize SQL Server with ASP.NET	CO4: Develop fully functional dynamic web applications using the concepts of PHP, MySQL, and Laravel framework
8	DSC36SEG21	Software Engineering	2024-25	CO1: appreciate the value of information to the modern organisation	CO2: understand the CIA triad of Confidentiality, Integrity and Availability	CO4: identify the five leading-edge resources that have up-to-date information on information security.
9	DSC36ADJ21	Advance Java Programming	2024-25	Co1: able to decompose the given project in various phases of a lifecycle	CO3: able to perform various life cycle activities like Analysis, Design, Implementation, Testing and Maintenance.	CO4: able to know various processes used in all the phases of the product.
10	DSC36INS21	Information Security	2024-25	CO1: To understand the concept of cloud computing.	CO2: To study the evolution of cloud from the existing technologies.	CO3: To implement the knowledge of computing on the various issues in cloud. CO4:To assess services provided by lead players in cloud.
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11	DSC36CCM21	Cloud Computing	2024-25	CO1: students to understand programming.	CO2: concept and its use in Software development.	CO4: Analysed different forms of inheritance.
12	DSC36AIM31	Artificial Intelligence & Machine Learning	2025-26	CO1: Provide an introduction to the basic principles, techniques, and applications of Artificial Intelligence.	CO2: Ability to select and implement machine learning techniques and AI computing environment that are suitable for the applications under consideration	CO4: Ability to recognize and implement various ways of selecting suitable model parameters for different machine learning techniques
13	DSC36DAN31	Data Analytics Using Python	2025-26	CO1: Demonstrate basic data analytics principles and techniques	CO3: Perform essential operations using NumPy and Pandas	CO4: Structuring the data in the dataset for a given problem.
14	DSC36ETH31	Ethical Hacking	2025-26	CO1: Teach students to think like an ethical hacker and at the same time follow the code of professional ethics and the prescribed cyber laws	CO2: Make oneself aware of the cybercrimes that are taking place in the real world.	CO4: Provide a deep understanding of security issues, threats and concerns in the cyber world and provide countenneasures to curb hacking
15	DSC36NLP31	Natural Language Processing	2025-26	CO1: Apply parsing technique to the given problem and verify the output and give valid conclusions.	CO2: Illustrate the approaches to syntax and semantics in NLP.	CO4: Evaluate NLP solutions of the given problem and arrive at valid conclusions.
16	DSC36BCT31	Blockchain Technology	2025-26	CO1: To introduce the fundamental concepts of Blockchain Technology.	CO2: To explore blockchain structure, cryptography principles, consensus models, and smart contract development.	CO3:To understand real-life applications of blockchain in various domains like finance, healthcare, and governance.



