CLASS: SYBBA (CA) SEMESTER: III

Course Title	Data Structure
CODE	Major Mandatory
CO No.	Course Outcomes On successful completion of the course, the student will be able to:
C.O.1	Explain and differentiate between various data structures and their real-life applications.
C.O.2	Analyze and evaluate the efficiency of different algorithms using Big O and other notations.
C.O.3	Implement linear data structures like arrays, stacks, and queues using static and dynamic memory allocation
C.O.4	Design and implement linked lists and perform various operations on them.
C.O.5	Apply tree and graph structures for problem-solving and implement traversal and search algorithms

Course Title	PHP
CODE	Major Mandatory
CO No.	Course Outcomes On successful completion of the course, the student will be able to:
C.O.1	Understand the basics of server-side scripting using PHP.
C.O.2	Develop dynamic web pages using PHP.
C.O.3	Work with PHP functions, arrays, and strings effectively.
C.O.4	Implement file handling and session management
C.O.5	Connect and interact with databases using PHP and MySQL.

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Course Title	Introduction to Cyber Security
CODE	Open Elective(OE)
CO No.	**Course Outcomes** **On successful completion of the course, the student will be able to:**
C.O.1	Define and explain essential cybersecurity concepts, threats, and preventive strategies
C.O.2	Interpret privacy principles and identify relevant laws and regulations protecting digital data.
C.O.3	Apply basic encryption methods to secure data and understand their role in cybersecurity.
C.O.4	Good understanding of cyber laws, cybercrime and punishments in Indian Scenario.

Course Title	Web development tools
CODE	VSC
CO No.	**Course Outcomes** **On successful completion of the course, the student will be able to:**
C.O.1	Explain the purpose, features, and evolution of WordPress
C.O.2	Create, format, and manage content using posts, pages, categories, and tags in WordPress
C.O.3	Publish and manage a responsive, user-friendly, and content-rich website suitable for business, blogging, or personal use

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Course Title	Project based on Web Applications
CODE	Field Projects (FP)
CO No.	Course Outcomes On successful completion of the course, the student will be able to:
C.O.1	Develop responsive web pages using Web Applications.
C.O.2	Build web applications with front-end Validations.
C.O.3	Use of APIs for dynamic content handling.
C.O.4	Collaborate on and deploy real-world web projects.

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CLASS: SYBBA (CA) SEMESTER: IV

Course Title	Object Oriented Programming using C++
CODE	MJ-251-CA
CO No.	**Course Outcomes** **On successful completion of the course, the student will be able to:**
C.O.1	Explain the fundamental concepts, features, and advantages of Object-Oriented Programming and describe the structure, features, and basic I/O operations of C++
C.O.2	Write simple C++ programs using appropriate data types, variables, operators, manipulators, and functions
C.O.3	Apply different types of inheritance, operator overloading, function overloading, and runtime polymorphism to create flexible and extensible C++ programs
C.O.4	Create, open, read, write, and close files using C++ standard library functions and implement function templates to create reusable, type-independent code.

Course Title	Advance PHP
CODE	MJ-252-CA
CO No.	**Course Outcomes** **On successful completion of the course, the student will be able to:**
C.O.1	Apply advanced PHP language features—including namespaces, traits, exceptions, and OOP principles—to build modular and reusable applications
C.O.2	Develop secure, database-driven web applications using PDO, prepared statements, transactions, and ORM tools.
C.O.3	Use MVC architecture and modern PHP frameworks (e.g., Laravel) to create scalable and maintainable projects.

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Course Title	Computer Network
CODE	VSC-251-CA
CO No.	Course Outcomes On successful completion of the course, the student will be able to:
C.O.1	Student will have knowledge of networking devices, types of addresses
C.O.2	Student will understand types of network and its uses
C.O.3	Student will gain knowledge on cryptography and its types and understand security mechanism

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