

"Excellence in the field of AI & DS"
Department of Artificial Intelligence & Data Science

Academic Year:2025-2026

Course Duration : 27/09/2025 to 27/10/2025

Sem-I

Course Curriculum and Schedule of Add-on Course on "Object-Oriented Programming with C++ for Placements"

Sr No	Module No	Name of the Module	Topic to be cover under module	Name of the faculty
1	Module-1	C++ Fundamentals Refresher	Introduction to C++ syntax, variables, data types, I/O	Dr Shrikant Dhamdhare Mr.Swapnil Gagare DR. KIRAN GAIKWAD
2			Conditional statements, loops, functions	
3			Arrays, Strings	
4			Pointers and Dynamic Memory	
5			Function Pointers, Recursion	
6			Intro to OOP: Class vs Object	
7	Module-2	Core Object-Oriented Programming Concepts	Classes, Objects, Access Specifiers	Mrs. Savitri Mane and Mrs. A.S. Lahane
8			Encapsulation & Abstraction	
9			Inheritance (Single, Multiple, Multilevel)	
10			Polymorphism (Compile-time & Run-time)	
11			Constructors, Destructors, Copy Constructor	
12			Friend functions, Static Members	
13	Module-3	Advanced OOP Features in C++	Operator Overloading	Mrs. Rucha Agrawal Mrs. V. E. Kadam
14			Function Overloading & Overriding	
15			Virtual Functions & Runtime Polymorphism	
16			Abstract Classes & Interfaces	
17			Templates (Function & Class)	
18			Exception Handling	
19	Module-4	Standard Template Library (STL)	Introduction to STL and Containers	Mrs. Vanshika Bawaney Mrs. Pallavi Gulve
20			Vectors and Iterators	
21			Maps and Sets	
22			Stack, Queue, Priority Queue	
23			Algorithms Library (sort, search, etc.)	
24	Module-5	Placement-Oriented Coding Practice	OOP-based coding problems (inheritance, polymorphism)	Dr. Babaso Shinde Dr. JYOTI DESHMUKH
25			STL-based coding problems (map, set, vector)	
26			Debugging & Optimization Techniques	
27	Module-6	Project & Interview Preparation	Mini Project using OOP (e.g., Bank App / Library)	Mr. N. S. Shaikh Dr. Chhaya Joshi
28			Mock Interviews, Viva Questions, Resume Help	
29			Mock Interviews, Viva Questions, Resume Help	
30			Course Wrap-Up & Q/A	

⊕ **Course Schedule:**

Weekdays: 3:30 PM – 4:30 PM

Working Saturdays: 9:00 AM – 4:00 PM

☐ A detailed schedule will be shared in the WhatsApp group joined after registration.

Add-on course Coordinator
 Dr.Shrikant Dhamdhare

HOB
 Dr. Jyoti Deshmukh

