



ISE Syllabus

Branch	Computer Engineering	Semester: III
Course Name	Object Oriented Programming Methodology	Academic year July 2023-June 2024
Faculty In-charges	Prof.Smita Sankhe Prof.Sheetal Pereira Dr. Ayesha Hakim Prof. Kaustubh Kulkarni	S.Y B.Tech Comp
Module no.	Topics	
1	Fundamentals of Object oriented Programming	
1.1	Introduction, Procedural Programming Approach, Structured Programming Approach, Modular Programming Approach, OOP Approach	
1.2	Objects and classes, Data abstraction and Encapsulation, Inheritance and Polymorphism, Runtime polymorphism, Static and Dynamic Binding, Exceptions, Reuse, Coupling and Cohesion, Object Oriented Features of Java and C++. Comparing Object Oriented Concepts with Java and C++	
2	Class, Object, Method and Constructor	
2.1	Class Object and Method: member, method, Modifier, Selector, iterator, State of an object, instance of operator, Memory allocation of object using new operator.	
2.2	Method overloading & overriding, constructor, destructor, Types of constructor (Default, Parameterized, copy constructor with object), Constructor overloading, this, final, super keyword, Garbage collection.	
3	Arrays String and vectors	
3.1	Arrays: Arrays: 1D, 2D, Variable Length array, for-each with Array, Array of objects, Vectors: Vector, ArrayList, Wrapper class. Command line Arguments.	
3.2	Immutable string, Methods of String class, String comparison, concatenation, substring, toString method	
3.3	String-Buffer class, StringBuilder class	