

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING - DATA SCIENCE

COURSE MODULE FOR THE SESSION 2026-27 (ODD SEMESTER)

Course Syllabi with CO's

Academic Year: 2026-27							
Department: Computer Science and Engineering (Artificial Engineering & Machine Learning)							
Course Code	Course Title	Core/Elective	Prerequisite	Contact Hours			Total Hrs/ Sessions
				L	T	P	
1BCS302	Object Oriented Programming with Java	Elective	-	3	0	2	28
1. Develop a Java program to add TWO matrices of suitable order N. 2. Develop a stack class to hold a maximum of 10 integers with suitable methods. Develop a Java main method to illustrate Stack operations. 3. Create a Java class called Student with the USN,Name,Branch,Phone details as variables within it. Write a Java program to create N Student objects and print the USN, Name, Branch, and Phone of these objects with suitable headings. 4. Develop a Java program to create a class named Shape. Create three sub classes, namely: circle, triangle and square. Each class has two member functions named draw and erase. Demonstrate the concepts of polymorphism by developing appropriate methods, defining member data, and implementing the main program. 5. Develop a Java program to create an interface Resizable with methods resizeWidth(int width) and resizeHeight(int height) that allow an object to be resized. Create a class Rectangle that implements the Resizable interface and implements the resize methods. 6. Develop a Java program to create a package named mypack and import & implement it in a suitable class. 7. Develop a Java program to raise a custom exception (user-defined exception) for DivisionByZero using try, catch, throw and finally. 8. Develop a program to create a class MyThread with a class constructor, call the base class constructor, using super and start the thread. The run method of the class starts after this. It can be observed that both main thread and created child thread are executed concurrently. 9. Develop a Java program using an enumeration called Department containing CSE, ISE, ECE, and MECH. Accept a department name as input and display the selected department using valueOf(). 10. Develop a Java program to read the marks of three subjects as strings, convert them into wrapper objects, calculate the total and average using autoboxing/unboxing and display the result. 11. Micro Project: A team of two to three students shall develop a project and submit a brief report for a specific task assigned by the course instructor based on the concepts covered in the syllabus.							

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Course outcome

At the end of the course, the student will be able to:

CO1: Choose a suitable IDE tool to design, develop, and debug Java programs.

The Correlation of Course Outcomes (CO's) and Program Outcomes (PO's)

Subject Code:	1BCS302			Title: Object Oriented Programming with Java					Faculty Name: Mrs. Suma H C			
List of Course Outcomes	Program Outcomes											Total
	PO-1	PO- 2	PO- 3	PO- 4	PO- 5	PO- 6	PO- 7	PO-8	PO- 9	PO- 10	PO- 11	
CO-1	2	2	2	1	3	-	-	-	-	1	2	13
Total	2	2	2	1	3	-	-	-	-	1	2	13

The Correlation of Course Outcomes (CO's) and Program Specific Outcomes (PSO's)

SubjectCode: 1BPOPL207		Course Title: C Programming Lab	
List of Course Outcomes	Program Specific Outcomes		
	PSO-1	PSO-2	Total
CO-1	2	2	4
Total	2	2	4

Note: 3 = Strong Contribution, 2 = Average Contribution, 1 = Weak Contribution, - = No Contribution