

KIIT POLYTECHNIC, BHUBANESWAR

LESSON PLAN Session (2023-2024)

Discipline: Computer Science & Engineering	Semester: 3rd, Winter/2023	Name of the Faculty: Sunil Kumar Sahoo, Lecturer Email ID: sunilfcs@kp.kiit.ac.in
Subject: Object Oriented Methodology	No. of Days/week: 04	Start Date: 16/08/2023 End Date: 30/11/2023

Week	Class Day	Theory Topics
1st	1st	• UNIT-I: Object Oriented Programming • OOPS concepts and terminology
	2nd	• Benefit of OOPS • Application of OOPS
	3rd	• Video content class using NPTEL Reference
	4th	• UNIT-II: INTRODUCTION TO JAVA • Execution Model of Java • The Java Virtual Machine • A First Java Program`
2nd	1st	• Variables, constants and Data types
	2nd	• Casting and Type Casting • Widening and Narrowing Conversions
	3rd	• Operators and Expressions

	4th	Arithmetic and Relational operators with example
3rd	1st	Logical , increment and decrement operators
	2nd	Bitwise operators
	3rd	Control Flow Statements(if,if-else,switch)
	4th	Loop(for,while,do-while)
4th	1st	Program using loops
	2nd	Arrays, Non-Primitive Data types
	3rd	String
	4th	UNIT-III: Objects And Classes - Concept and Syntax of class
5th	1st	- Defining a Class - Defining Method & Access Control
	2nd	- Creating an Object - Accessing Class Members - Instance Data and Class Data
	3rd	- Constructors - Types of constructor
	4th	- Access specifiers - Types of access specifier
6th	1st	Quiz Test-I
	2nd	UNIT-IV: String Builder and String Buffer
	3rd	Methods and Messages
	4th	- Parameter Passing - Comparing and Identifying Objects
7th	1st	Smart class with NPTEL reference
		UNIT-V: Inheritance in Java - Types of inheritance

	2nd	• Single Inheritance(Example) • Multi-level Inheritance(Example)
	3rd	• Hierarchical Inheritance • Hybrid Inheritance
	4th	• Video content class using NPTEL Reference
8th	1st	• UNIT-VI: Polymorphism • Types of Polymorphism
	2nd	• Method Overloading • Method Overriding
	3rd	• Run time Polymorphism
	4th	• UNIT-VII: Packages: putting classes together • Introduction to Java API Packages
9th	1st	• Using System Packages • Using a Package
	2nd	• Static Import • Naming Convention
	3rd	• Creating Packages • Accessing a Package
	4th	• Adding a Class to Package • Hiding Classes
10th	1st	• UNIT-VIII: Java files and i/o • What is a stream?
	2nd	• Reading and writing to files(only txt files)
	3rd	• Input and Output Stream
	4th	• Manipulating Input data

11th	1st	Opening and Closing Streams
	2nd	Predefined streams
	3rd	File handling Classes and Methods
	4th	UNIT-IX: Exceptions Overview - Types of exception
12th	1st	- Exception Keywords - Exceptions(program)
	2nd	Catching Exceptions
	3rd	Using Finally Statement
	4th	Exception Methods
13th	1st	Defining and throwing exceptions
	2nd	Errors and Runtime Exceptions
	3rd	Errors and Runtime Exceptions program
	4th	Handling of exception
14th	1st	Try, throw and catch program
	2nd	Using finally statement
	3rd	Throwing our own exceptions
	4th	Quiz Test-II
15th	1st	Revision test after syllabus coverage
	2nd	Assignment Evaluation
	3rd	Discussing previous year question paper after finishing the syllabus
	4th	Practice Test