

## LESSON PLAN: Object Oriented Programming using Java

Discipline :		Computer Engineering		
Faculty :		Pooja		
Semester :		4th		
Duration :		16 WEEKS(22 March 2021 to 02 July 2021)		
Work Load :	Lecture :	4 Lecture per week		
	Practical:	6 (G1) + 6 (G2) hours Lab per week		
Week	Week Day	Theory	Week Day	Practical (Group: G1, G2)
1 <sup>st</sup>	1st	Fundamentals of object oriented programming :procedure oriented programming Vs. objectoriented programming (OOP)	1st	Practice Creating Classes andObject functions
	2nd	Object oriented programming concepts –Classes, object	2nd	Practice Creating Classes andObject functions
	3rd	object reference, abstraction, encapsulation	1st	Practice Creating Classes andObject functions
	4 <sup>th</sup>	inheritance, polymorphism	2nd	Practice Creating Classes andObject functions
2 <sup>nd</sup>	5th	Introduction of eclipse (IDE) for developing programs in Java	1st	Practice Creating Classes andObject functions
	6th	Review of constructs of C used in JAVA : variables, types and type declarations	2nd	Practice Creating Classes andObject Functions
	7th	data types, pointers	1st	Practice Creating Classes andObject functions
	8th	Functions	2nd	Practice Creating Classes andObject Functions
3 <sup>rd</sup>	9th	Structure and unions	1st	Practice Creating Classes andObject functions
	10th	increment and decrement operators,	2nd	Practice Creating Classes and Object functions
	11th	relational and logical operators	1st	Practice Creating Classes andObject functions
	12th	if then else clause	2nd	Practice Creating Classes and Object functions
4 <sup>th</sup>	13th	conditional expressions, input using scanner class and output statement	1st	Practice Creating Classes andObject functions
	14th	input using scanner class and output statement	2nd	Practice Creating Classes and Object functions
	15th	loops, switch case	1st	Practice Creating Classes andObject functions
	16th	arrays, methods Assignment-1	2nd	Practice Creating Classes and Object functions
5 <sup>th</sup>	17th	Revision/ Sessional -1		
	18th	Revision/ Sessional -1		
	19th	Revision/ Sessional -1		
	20th	Creation Class members		

6 <sup>th</sup>	21th	Accessing classmembers.	1st	Continue Previous Experiment
	22th	Private data members and functions, Public data members and functions	2nd	Practice Classes and Objects
	23th	Protected data members and functions	1st	Continue Previous Experiment
	24th	Defaultdata members and functions	2nd	Practice Classes and Objects
7 <sup>th</sup>	25th	Comparison: Private Vs Public Vs Protected Vs Default	1st	Practice Classes and Objects
	26th	Constructors	2nd	Experiment 2 of Practical List
	27th	Object & Object Reference	1st	Practice Classes and Objects
	28th	Definition of inheritance	2nd	Experiment 2 of Practical List
8 <sup>th</sup>	29nd	Inheritance types, protected data	1st	Experiment 3 of PracticalList
	30rd	private data, public data	2nd	Continue Previous Experiment
	31th	constructor chaining,	1st	Experiment 3 of PracticalList
	32th	order of invocation ofconstructors	2nd	Continue Previous Experiment
9 <sup>th</sup>	33th	Assignment-2/ Sessional-2	1st	Practice Inheritance examples
	34th	Revision/ Sessional-2	2nd	Experiment 4
	35th	Revision/ Sessional-2	1st	Practice Inheritance examples
	36th	types of inheritance, single inheritance	2nd	Experiment 4
10th	37th	multilevel inheritance	1st	Practice Inheritanceexamples
	38th	hierarchical inheritance,	2nd	Experiment 6
	39th	hybrid inheritance	1st	Practice Inheritanceexamples
	40th	Class test of Inheritance	2nd	Experiment 6
11th	41st	Introduction to polymorphism and its types	1st	Experiment 7
	42nd	Uses of Polymorphism	2nd	Experiment 8
	43rd	Method & constructor overloading,	1st	Experiment 7
	44th	Methodoverriding	2nd	Experiment 8
12th	45th	up-casting and down-casting	1st	Experiment 8
	46th	Key points of Abstract class and Interface, difference between an abstract class &interface	2nd	Practice Inheritanceexamples
	47th	implementation of multiple inheritance through interface	1st	Experiment 8
	48th	implementation of multiple inheritance through interface	2nd	Practice Inheritanceexamples

13th	49th	Definition of exception handling	1st	Practice abstract Class
	50th	implementation of keywords like try, catch	2nd	Practice Interface
	51th	Implementation of finally, throw & throws	1st	Practice abstract Class
	52th	importance of exception handling in practical	2nd	Practice Interface
14th	53rd	implementation of live projects	1st	Experiment 9
	54th	Assignment-3/ Sessional-3	2nd	Experiment 9
	55th	Revision/ Sessional-3		
	56th	Revision/ Sessional-3		
15th	57th	Revision	1st	Experiment 10: Practice Exception handlingprograms
	58th	Revision	2nd	Experiment 10: Practice Exception handlingprograms
	59th	Revision	1st	Practice Exception handling programs
	60th	Revision	2nd	Practice Exception handling programs