	Object Oriented Programming Lab	L	T	P	C
Version 1.0		0	0	2	1
Pre-requisites/Exposure	Basic knowledge of computer programming concepts and data structures				
Co-requisites	–				

Course Objectives

The student should be able to

1. Design and code the programs using java concepts.
2. Utilize the flexibility and modularity provided by OOPs using Java.
3. Implement Exception handling and Multithreading in Java
4. Develop server side applications using design patterns and data base connectivity

Course Outcomes

At the end of this course student should be able to

CO 1. Demonstrate object-oriented concepts using Java Language.

CO 2. Implement programs in Java using packages, interfaces and exceptions.

CO 3. Apply strings, threads and collections in Java.

CO 4. Develop server side applications using JSP, servlet and JDBC

Catalog Description

This course introduces JAVA programming language with object-oriented programming principles. The course aims to utilize object-oriented programming paradigm, focusing on the definition and use of classes along with the fundamentals of object-oriented design. Further, emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. The concept of design patterns is used to develop interactive applications.

List of Experiments

Lab. Exercise 1 Introduction to Java Environment

Lab. Exercise 2 Basic Java Programming

Lab. Exercise 3 Basic Java Programming

Lab. Exercise 4 Inheritance

Lab. Exercise 5 Interface

Lab. Exercise 6 Package

Lab. Exercise 7 Exceptions

Lab. Exercise 8 Strings Handling and Wrapper Class

Lab. Exercise 9 Threads and Collections

Lab. Exercise 10 JDBC

Lab. Exercise 11 Servlets

Text Books

1. The Java Programming Language 3rd Edition, Ken Arnold, James Gosling, Pearson
2. A premier guide to SCJP 3rd Edition, Khalid Mughal, Pearson
3. Thinking in Java, 3rd Edition, Bruce Ackel, Pearson
4. Video resourceshttp://www.youtube.com and blackboard.

Continuous Evaluation-

There will be continuous evaluation for all practical subjects of SoCS during the semesterw.e.f. January 2016. The performance of a student in a Practical subject will be evaluated as per process given below:

- Components of evaluation
  a. Viva voce / Quiz (50%) + Performance & Records (50%).
  b. Lab performance and record evaluation shall be a continuous process throughout the semester.
  c. Minimum three Viva voce/ Quiz based on practical sessions shall be conducted during the semester.

Relationship between the Program Outcomes (POs), Program Specific Outcomes and Course Outcomes (COs)

Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	2		2								1	3	
CO2	1	2	2	2	2								1	3	
CO3	1	2	2	1	2								1	3	
CO4	1	2	2		2								1	3	
Average	1	2	2	1.5	2								1	3	

1=weak 2= moderate 3=strong