

Birla Institute of Technology & Science, Pilani
Software Development & Educational Technology Unit

First Semester, 2007-2008

Course Handout

Course No.: SDETC102

Course Title: Core Java

Instructor: V. Karthik Kumar (Email: karthikkumar@)

Course Webpage: <http://sdetu/courses/SDETC102/>

1. Scope & Objective: The objective of the course is to provide students the foundations of Object-Oriented Programming (OOP) through Java, thereby enabling them to create extensible frameworks and applications. The scope of the course includes Fundamentals of OOP, Basics of Java, Generics and the Java Collections Framework (JCF), Packaging and Deployment considerations, GUI Programming through Swing, Database Programming through Java and current & future directions in Java.
2. Text Book:
 - T1. Thinking in Java, 4/e. Bruce Eckel (Pearson Education Asia, 2006)
3. Reference Material:
 - R1. The Java Tutorials: <http://java.sun.com/docs/books/tutorial/>
 - R2. JDK 6 Documentation: <http://java.sun.com/javase/6/docs/>
 - R3. The Java Language Specification 3/e: <http://java.sun.com/docs/books/jls/>
 - R4. Additional references posted on the course webpage.
4. Lecture Schedule:

Lectures	Topics	Readings
1	Introduction and Motivation to learn Java	-
2	Basics of Object-Oriented Programming	T1 Ch. 2
3	Java Execution Model	T1 Ch. 3
4,5	Primitives, Operators, Casts, Control Flow	T1 Ch. 4-5
6-8	Classes: Variables, Scope, Methods	T1 Ch. 1,6,7
9	Exception Handling	T1 Ch. 13
10,11	Inheritance: Interfaces, Abstract Classes	T1 Ch. 8-11
12,13	Generics and the Java Collections Framework	T1 Ch. 12, 16-18
14,15	Java Util and I/O	T1 Ch. 19, R1, R2
16	Packaging	Class Notes

17	Multi-threaded Programming	T1 Ch. 22
18-20	GUI Programming with Swing	T1 Ch. 23
21-23	Database Programming with JDBC	R1, Class Notes
24	Future Directions in Java: Language Features, Server-Side and Mobile development	T1 Ch. 21, Class Notes

5. Evaluation Scheme:

Component	Weightage	Remarks
Assignment 1: Individual	10%	-
Labs	10%	-
Mid-Semester Test	20%	Take Home
Assignment 2: Group Project	20%	-
Comprehensive Exam	40%	Open Book

6. Actions against Malpractice Regulations:

To be discussed in class.

7. Schedule of Actual Components:

All dates will be announced in class and will be updated on the course webpage. Final grades will be announced before the On-Campus Comprehensive Examinations commence.

8. Notices:

All notices for this course will be displayed on the course web site.

9. Chamber Consultation Hours:

To be announced in class.

**Instructor in Charge
SDETC102**