CMT 211 Object Oriented Programming II Using Java

Purpose
To equip students with skills and concepts for writing object oriented programs using Java programming language

Objectives
By the end of the course students should be able to
1. Use Basic Java Concepts:
2. Use Java Arrays, String methods and manage Exceptions .
3. Use Java in Writing Object Oriented Program including passing objects to array, processing array of objects, methods that return and create objects
4. Implement Inheritance and Abstract classes Using Java
5. Create user defined packages and Interfaces
6. Understand the role of Polymophism in Java
7. Introduction to Exceptions

COURSE CONTENTS

WK	TOPIC	CONTENT	COMMENTS
1	**Basic Concepts**	Introduction to Java as an OOP platform: Basic programming Concepts : Variables ,Operators, Scanner Class	Class Exercise
2	**Basic Concepts**	Controls structures and flow chart diagrams,Scanner Class,Math Class methods	Class Exercise
3	**Basic Concepts**	Declaration, Simple methods, Passing parameters, returning methods	**Class Exercise**
4	**Basic Concepts**	Java Arrays: One & two dimensional. Passing Array to Methods	CAT1: **10%**
5	**Basic Concepts**	Character Class String Class methods and Java Methods	Assignment: 10%
6	**Java OOP**	Java OOP Support: Classes and Objects. Access modifiers, Constructors. Practical Examples **Assig2a 5%**	Assignments 2 10%
7	**Java OOP**	Java OOP Support: Passing array of Object to methods. Practical Examples **Assig2b 5%**	
8	**Java OOP**	Java OOP Support: Creating and returning objects, Array of objects. Creating and returning an array of objects. Practical Examples **Assig2c 5%**	
8	**Java OOP**	Implementing Inheritance: Practical Examples **Assig2d 10%**	
9-10	**Exceptions**	Managing Program Errors in Java: Exceptions, Classes Exception Hierarchy. Run-time Errors, Type of exceptions	CAT2: **10%**
11	**Java OOP**	Polymorphism in Java, Interfaces, and Packages.	**Class Exercise**
12	**Introduction to java Applet**	Introduction to Applets: Drawing simple drawings, **(A gift if time allows)**	Class Exercise
13-	**Revision** And Exams		

Assessment Criteria
The final mark is determined by students attendance and participation and use of Continuous assessment Test (CATS), assignment and a final exam as detailed in the course outline

Required Learning Materials

Textbooks for the course
1. Java How to Program Fourth Edition
2. Teach You self Java in 21 days online book
3. Lecturers Slides

Internet Resources

https://mindsmapped.com/java-j2ee-training-online.html

Policy on Attendance and Tardiness
- It is expected that unless for an avoidable circumstances, a student should **attend all classes** and **on time**.
- If a student misses a total of six hours in a semester he/she will be disqualified from sitting for the end of year exam.
- All students are expected to observe acceptable dress code.

Policy on Missed Test and / or Examination
It is expected that in case a student misses a test or an assignment deadline that he consult the Lecture **before** the due date and ensure that if agreed upon he/she sits for missed CAT within a period of one week after reporting to college.
Reasons for missing a CAT is as stipulated in the student handbook.
 Failure to this the student will earn 0 (zero marks) in the CAT. The lecturer is supposed to fill in a form Delayed assignment will cost the student 1 mark per day unless otherwise agreed between the student and the Lecturer.(see the attached form)

Lecturer..Signature...........................Date......................

HOD..................................Signature................................ Date...........................