



East West University
Department of Computer Science and Engineering
Course Outline of CSE110
Spring 2025 Semester

Course Information

Course: CSE110 Object Oriented Programming (Section 3 and 4)

Credit and Teaching Scheme:

	Theory	Laboratory	Total
Credits	3.0	1.5	4.5
Contact Hours	3 Hours/Week for 13 Weeks	3 Hours/Week for 13 Weeks	6 Hours/Week for 13 Weeks

Prerequisite: CSE106 Discrete Mathematics

Instructor Information

Instructor: Dr. Mohammad Salah Uddin
 Associate Professor, Department of Computer Science and Engineering
Office: Room # 648
Tel. No.: 09666775577 (hunting) ext. 395
Mobile: N/A
E-mail: uddin@ewubd.edu
Course Repository: www.banglarbot.com
GTA:

Class Routine and Office Hour

www.banglarbot.com/spring2025.html

Day	08:30-10:00	10:10-11:40	11:50-01:20	01:30-03:00	03:10-04:40	04:50-06:20
Sunday			Office Hour	CSE110(4) Room#221	Office Hour	CSE227(1) Room#630
Monday				Office Hour	CSE110(4) LAB Room#637	CSE110(4) LAB Room#637
Tuesday		CSE227(1) Room#108	Office Hour	CSE110(3) Room#113		
Wednesday	Office Hour	CSE110(3) LAB Room#637	CSE110(3) LAB Room#637	CSE110(4) Room#221		
Thursday		CSE227(1) Room#108	Office Hour	CSE110(3) Room#113		

Course Objective

This course presents a conceptual and practical introduction to object-oriented programming (OOP). The course will cover general principles of programming in object-oriented frameworks to enhance transferable skills, such as programming, designing, and problem-solving skills. This course introduces object-oriented concepts and develops OOP programs which provides solutions to real-world object-oriented problems. Java is primarily chosen as the programming language in this course. Knowledge of this course will be needed as prerequisite knowledge for CSE207 Data Structures.

Course Outcomes (COs)

After completion of this course students will be able to:

CO1	Understand and apply the basics of elementary programming in the target language and concepts related to the definition, creation and usage of classes and objects for writing object-oriented programs.
CO2	Use the principles of inheritance and polymorphism and design abstract classes and interfaces for implementing object-oriented programs.
CO3	Apply object-oriented programming concepts, exception handling, file handling, graphical user interface (GUI), multi-threaded programming and generics for solving object-oriented problems.
CO4	Choose appropriate tools, perform and demonstrate skills and write report to design, build, and test realistic object-oriented applications.

Course Topics, Teaching-Learning Methods and Assessment Scheme

Course Topic	Teaching-Learning Method	CO	Mark of Cognitive Learning Levels		Mark of COs	Exam (Mark)
			C2	C3		
Principles of Object-Oriented Programming and Basics of Elementary Programming in Java (conditional branching, looping, methods and arrays)	Lecture, Class Discussion, Discussion Outside Class with Instructor/ Teaching Assistant	CO1	5	5	10	Class Test/Quiz/Participation (10)

Introduction to Classes and Objects (Classes, Objects, Instance variables and instance methods, Constructors)	Do	CO2	5		5	Mid Semester Assessment (25)
Inheritance and Polymorphism in OOP (super class, sub class, multiple-level inheritance, late binding)	Do		5	5	10	
Abstract Class and Interfaces (differences, applicability and implementation)	Do			10	10	
Exception Handling in OOP	Do	CO3		5	5	Final Exam (30)
File handling using Text and Binary I/O	Do			5	5	
Implementation of Generics	Do			5	5	
Inner Class, Lambda Expression	Do			5	5	
Socket Programming	Do			5	5	
Multi-threaded Programming	Do			5	5	

Lab Exercises

Experiment	Teaching-Learning Method	CO	Marks of Cognitive Level	Mark of Psychomotor Level		Mark of Affective Level	Mark of COs
			C3	P2	P3	A2	
Java Basics of Elementary Programming, Conditional Statements	Lab Experiment and Result Analysis and Discussion with Instructor, Post-Lab Report	CO4					
Looping, Nested Looping, Arrays	Do	CO4					
Java Methods and library functions	Do	CO4					
Designing and Implementing simple Classes and	Do	CO4					

Objects, Arrays of Objects etc.								
Implementing associations of Classes	Do	CO4						
Designing and Implementing Inheritance and Polymorphism	Do	CO4						
Designing and Implementing Abstract Class and Interfaces	Do	CO4						
Understanding and Implementing Exceptions and File management	Do	CO4						
GUI, JDBC and other advanced topics.	Do	CO4						
Lab Exercises		CO4	3	2.5	2.5	2	10	
Lab Final (Exam)	Individual Exam	CO4	3	2.5	2.5	2	10	
Total			6	5	5	4	20	

Mini Project

Mini Project	Teaching-Learning Method	CO	Mark of Cognitive Levels		Mark of Psychomotor Levels		Mark of Affective Levels	Mark of COs
			C3	C4	P2	P3	A2	
Mini Project including Report and Presentation	Moderately complex Project with report writing, and oral/poster presentation	CO4	2	2	2	2	2	10

Overall Assessment Scheme

Assessment Area	COs				Assessment Area Mark
	CO1	CO2	CO3	CO4	
Class Participation/Test/Quizzes	10				10
Mid Semester Assessment		25			25
Final Exam			30		30

Lab Performance/ Experiments				10	10
Lab Final				10	10
Mini Project				10	10
Assignment				5	5
Total Mark	10.0	25.0	30.0	35.0	100

Teaching Materials/Equipment

Text Book:

- **Introduction to Java Programming by Daniel Liang**
- Herbert Schildt, *Java: The Complete Reference*, 11th edition, McGraw-Hill Education (2023)

Reference Book:

- Paul Deitel, Harvey Deitel, *Java™ How to Program Early Objects*, 11th edition
- Walter Savitch, *Absolute Java*, Pearson (5th edition)
- Bert Bates and Kathy Sierra, *Head First Java*, O'Reilly Media (2nd edition)

Software/Tools:

- Java Development Kit (JDK 1.8)
<https://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>
- Any Integrated Development Environment (IDE) supporting Java preferably NetBeans or Eclipse
<https://netbeans.apache.org/download/index.html>, <https://www.eclipse.org/downloads/>
- [Android Studio](#)

Grading System

Marks (%)	Letter Grade	Grade Point	Marks (%)	Letter Grade	Grade Point
80-100	A+	4.00	55-59	B-	2.75
75-79	A	3.75	50-54	C+	2.5
70-74	A-	3.5	45-49	C	2.25
65-69	B+	3.25	40-44	C-	2
60-64	B	3.00	Below 40	F	0.00

Exam Dates

Section	Term I	Final
3	TBA	
4	TBA	

Academic Code of Conduct

Academic Integrity:

Any form of cheating, plagiarism, personification, falsification of a document as well as any other form of dishonest behavior related to obtaining academic gain or the avoidance of evaluative exercises committed by a student is an academic offence under the Academic Code of Conduct and **may lead to severe penalties as decided by the Disciplinary Committee of the university.**

Special Instructions:

- Students are expected to attend all classes and examinations. A student **MUST** have at least 80% class attendance to sit for the final exam.
- Students will not be allowed to enter into the classroom after 10 minutes of the starting time.
- For plagiarism, the grade will automatically become zero for that exam/assignment.
- Normally there will be **NO make-up exam**. However, in case of **severe illness, death of any family member, any family emergency, or any humanitarian ground**, if a student miss any exam, the student **MUST** get approval of makeup exam by written application to the Chairperson through the Course Instructor **within 48 hours** of the exam time. Proper supporting documents in favor of the reason of missing the exam have to be presented with the application.
- For **final exam**, there will be **NO** makeup exam. However, in case of **severe illness, death of any family member, any family emergency, or any humanitarian ground**, if a student miss the final exam, the student **MUST** get approval of **Incomplete Grade** by written application to the Chairperson through the Course Instructor **within 48 hours** of the final exam time. Proper supporting documents in favor of the reason of missing the final exam have to be presented with the application. **It is the responsibility of the student to arrange an Incomplete Exam within the deadline mentioned in the Academic Calendar in consultation with the Course Instructor.**
- All mobile phones **MUST** be turned to silent mode during class and exam period.
- There is **zero tolerance for cheating** in exam. Students caught with cheat sheets in their possession, whether used or not; writing on the palm of hand, back of calculators, chairs or nearby walls; copying from cheat sheets or other cheat sources; copying from other examinee, etc. would be treated as cheating in the exam hall. The only penalty for cheating is **expulsion for several semesters as decided by the Disciplinary Committee of the university.**