UNITED INTERNATIONAL UNIVERSITY

Department of Computer Science and Engineering (CSE)

Course Syllabus

1	**Course Title**	Object Oriented Programming Laboratory
2	**Course Code**	CSE 1116
3	**Trimester and Year**	Fall2024
4	**Pre-requisites**	CSE 1112 Structured Programming Language Laboratory
5	**Credit Hours**	1.0
6	**Section**	B, C
7	**Class Hours**	Tuesday 11:10 AM – 01:40 PM, Saturday 11:10 AM – 01:40 PM
8	**Class Room**	522, 523
9	**Instructor's Name**	Mir Moynuddin Ahmed Shibly
10	**Email**	moynuddin@cse.uiu.ac.bd
11	**Office**	536(C)
12	**Counselling Hours**	**United International University** **School of Science & Engineering (SoSE)** **Weekly Schedule: Class Hour, Counseling Hour (CnH) and Office Hour (OH)** **Trimester/Semester: Fall 2024** **Name : Mir Moynuddin Ahmed Shibly** **Phone : 01521205754** **Teacher Initial : MMAS** **Email : moynuddin@cse.uiu.ac.bd** **Designation : Lecturer** **Room No : 536(C)**

Undergraduate Program

DAY	8:30AM-9:50AM	9:51AM-11:10AM	11:11AM-12:30PM	12:31PM -1:50PM	1:51PM -3:10PM	3:11PM-4:30PM
SAT	CnH	CnH	CSE 1116 (C) - 523	CSE 1116 (C) - 523	CnH	CSE 4783 (A) - 301
SUN	CSE 4531 (D) - 325	CnH	CnH	CnH		
MON		OH	OH	OH		
TUE	CnH	CnH	CSE 1116 (B) - 522	CSE 1116 (B) - 522	CnH	CSE 4783 (A) - 301
WED	CSE 4531 (D) - 325	CnH	CSE 4165 (E) - 422	CSE 4165 (E) - 422		

13	**Text Book**	Java The Complete Reference, Herbert Schildt Course Materials: Course Materials
14	**Reference**	Head First Java(O'Reilly – Kathy Sierra & Bert Bates) Java: How to Program, 9th Edition (Deitel)
15	**Course Contents (approved by UGC)**	Laboratory work based on CSE 1115

16 Course Outcomes (COs)

COs	Statement	Bloom's Domain	Program Outcome	Knowledge Profile	Complex Problem	Engineering Activities
CO1	Understand and apply the Object Oriented Programming Features in solving programming problems.	C	A Engineering Knowledge	K3 Engineering Fundamentals K6 Engineering Practice	P1 Depth of Knowledge	-
CO2	Use a modern/popular IDE to develop the application.	C	E Modern Tool Usage			-
CO3	Able to efficiently use the standard framework specific libraries	C	E Modern Tool Usage			-

17 Teaching Methods Lecture, Case Studies, Project Developments.

18 CO with Assessment Methods

CO	Assessment Method	(%)
-	Attendance	10
-	Online	20
CO1, CO2, CO3	Offline (Assignments)	20
CO1, CO2	Mid Term	25
CO1, CO2, CO3	Final Exam	25

19 Mapping of COs and Program outcomes

COs	Program Outcomes(POs)											
	PO a	PO b	PO c	PO d	PO e	PO f	PO g	PO h	PO i	PO j	PO k	PO l
CO1			X									
CO2					X							
CO3					X							

20	**Lab Outline**

Class	Topics/Assignments	COs	Lab Outcomes/Activities
Lab1	Introduction to Java, Tool Set up, Hello World program	CO1, CO2	Able to Use the tool to develop application using OOP features.
Lab2	Array, Control Statement, Introduce the concept of Class and Object, class members. Show how to create object and access members of the class.	CO1, CO2	Able to create class, object and use the member of the class via reference variable.
Lab3	Class and Object continued. Introduce taking user input using scanner & JOptionPane	CO1, CO2	Make the student comfortable with Class and Object. Explain how to take user input and develop code involving user input.
Lab4	Inheritance and Method Overriding	CO1	Explain what inheritance and method overriding are and where to use these features. Able to develop code using inheritance and overriding.
Lab5	Method Overloading, Abstract Class	CO1	Explain what abstraction and overloading are and where to use these features. Able to develop application using these features.
Lab6	Mid Exam		
Lab7	GUI	CO1, CO2, CO3	Explain different components of GUI. Able to develop GUI application with proper event handling code.
Lab8	IO and Exception	CO1, CO2, CO3	Explain IO model. Explain Exception Handling process. Able to develop application with IO and

					proper Exception handling code.
		Lab9	Collections Framework	CO1, CO2 CO3	Explain ArrayList, HashSet, HashMap and use those to create collections of java objects.
		Lab10	Thread	CO1, CO3	Explain what Thread is and how to create/run multiple Threads. Able to develop a simple multi threaded application.
		Lab11	Game development using GUI Graphics	CO1, CO2, CO3	Able to develop a simple gaming application using Graphics and Timer/Thread.
		Lab12	Final Exam		

Appendix 1: Assessment Methods

Assessment Method	(%)
Attendance	10
Lab Performance	20
Assignments	20
Mid Exam	25
Final Exam	25

Appendix 2: Grading Policy

Letter Grade	Marks %	Grade Point	Letter Grade	Marks %	Grade Point
A (Plain)	90-100	4.00	C+ (Plus)	70-73	2.33
A- (Minus)	86-89	3.67	C (Plain)	66-69	2.00
B+ (Plus)	82-85	3.33	C- (Minus)	62-65	1.67
B (Plain)	78-81	3.00	D+ (Plus)	58-61	1.33
B- (Minus)	74-77	2.67	D (Plain)	55-57	1.00
			F (Fail)	<55	0.00

Appendix-3: Program outcomes

POs	Program Outcomes
PO1	An ability to apply knowledge of mathematics, science, and engineering
PO2	An ability to identify, formulate, and solve engineering problems
PO3	An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
PO4	An ability to design and conduct experiments, as well as to analyze and interpret data
PO5	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
PO6	The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
PO7	A knowledge of contemporary issues
PO8	An understanding of professional and ethical responsibility
PO9	An ability to function on multidisciplinary teams
PO10	An ability to communicate effectively
PO11	Project Management and Finance
PO12	A recognition of the need for, and an ability to engage in life-long learning