UNITED INTERNATIONAL UNIVERSITY

Department of Computer Science and Engineering (CSE)

Course Syllabus

1	**Course Title**	Object Oriented Programming Laboratory
2	**Course Code**	CSI 212
3	**Trimester and Year**	Spring 2018
4	**Pre-requisites**	CSI 122 Structured Programming Language Laboratory
5	**Credit Hours**	1.0
6	**Section**	
7	**Class Hours**	
8	**Class Room**	
9	**Instructor's Name**	Tanjina Helaly
10	**Email**	tanjina@cse.uiu.ac.bd
11	**Office**	
12	**Counselling Hours**	
13	**Text Book**	Java The Complete Reference, Herbert Schildt
14	**Reference**	**H**ead 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 **CSI 211**
16	**Course Outcomes (COs)**	
17	**Teaching Methods**	Lecture, Case Studies, Project Developments.
18	**CO with**	

COs	**Description**
CO1	Describe the Object Oriented Programming Features.
CO2	Able to analyze a problem and develop well designed applications using the OOP features.
CO3	Use a modern/popular IDE to develop the application.
CO4	Be able to use the Library effectively.
CO5	Develop self-driven project using the concepts learned from course and their own research.

Assessment Methods

CO	Assessment Method	(%)
-	Attendance	10%
	Class Performance	20%
	Report/Viva	10%
C02,CO3, CO4, CO5	Project & Presentation (on Project)	20%
CO1, CO3, CO4	Mid Term	15%
CO1	Final Exam	25%

19 Mapping of COs and Program outcomes

COs	Program Outcomes(POs)											
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	X											
CO2	X	X										
CO3					X							
CO4					X							
CO5	X	X							X	X		

20 Lab Outline

Class	Topics/Assignments	COs	Lab Outcomes/Activities
Lab1	Introduction to Java, Tool Set up, Hello World program	CO3	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, CO3	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, CO3	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, CO2, CO3	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

		CO2, CO3	and overloading are and where to use these features. Able to develop application using these features.
Lab6	Mid Exam		
Lab7	GUI	CO1, CO2, CO3, CO4	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	Socket	CO4	Explain the Basic Socket programming concept. Able to develop a simple chat application with single server and client.
Lab10	Thread	CO1, CO2, CO3, CO4	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, CO4	Able to develop a simple gaming application using Graphics and Timer/Thread.
	Final Exam	CO1	
Lab12	Project Submission and Presentation	CO2, CO3, CO4, CO5	Able to work in a team and communicate effectively.

Appendix 1: Assessment Methods

Assessment Types	**Marks**
Attendance	10%
Class Performance	20%
Report/Viva	10%

Project & Presentation (on Project)	20%
Mid Term	15%
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