Al-Albayt University
Faculty of Information technology
Department of CS
First Semester 2018/2019

	Course Syllabus
Course Title: **Programming with Java**	**Course code: 901211**
Course Level:	**Course prerequisite (s) and/or OOP**
Lecture Time:	**Credit hours:** 3

Course module description and objective:

The objective of this course is to teach students object oriented programming via the Java programming language. By the end of the course, you should be familiar with:

- Java language basics like the types, operators and program control.
- Principles of object oriented programming in Java with classes, inheritance, polymorphism, interfaces, containers and design patterns.
- Exception handling. Java IO,
- Familiarity with the Graphical User Interfaces (GUIs)
- Applet programming basics.

Text book:

Java: How to Program, (Deitel & Deitel) 9th Edition.

Allocation of Marks	
Assessment Instruments	**Mark**
First Exam	20%
Second Exam	20%
Lab	10%
Final Exam	50%

Course/module academic calendar

Week	Basic and support material to be covered	Homework/reports and their due dates
(1)	Background, basics of O-O,	
(2)	Java Syntax	
	Primitive Data Types and Classes: Primitive Data Types Input/output statements Procession Numerical Data Calling Methods using Dot Notation String and Math Class	
(3,4)	Simple Java Applications	
(5)	Java Applets (Introduction)	
(6)	Object Based Programming	

	Object oriented Design Definitions of Class, Field, Method, and Constructor Instance methods versus Class methods. Argument/Parameter correspondence. Methods output. Using *This* keyword.	
(7)	Object based programming. **First exam**	
(8)	**Control Structures: Decisions and Loops** Boolean Expressions. The if statement. Multiple-Alternative Decisions. Counting loops State-Controlled Loops	
(9, 10)	**Arrays and Strings** Declaration Operations On Whole Arrays. Passing Arrays to Methods. Searching and Sorting arrays. Array of Objects. 2-D Arrays	
(11)	Class Hierarchies, Inheritance, and Interface • Class Hierarchies and Inheritance. • Operations in a Class Hierarchy. • Polymorphism. • Interfaces. • Abstract Classes.	
(12, 13)	Class Hierarchies, Inheritance, and Interfaces.	
(14)	I/O streams **Second Exam**	
(15)	Exception handling	
(16)	Final Exam	

Expected workload:

On average students need to spend 2 hours of study and preparation for each 50-minute lecture/tutorial.

Attendance policy:

Absence from lectures and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the relevant college/faculty shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.