COURSE DESCRIPTIONS

Faculty	Science and Information Technology					
Department	Computer Science			**NQF level**		6
Course Title	Vision Programming	**Code**	501317	**Prerequisite**		--------
Credit Hours	3	**Theory**	3	**Practical**		0
Course Leader	M. Mohammad Al-issa	**email**	mohammadal-issa@jadara.edu.jo			
Lecturers	M. Mohammad Al-issa	**emails**	mohammadal-issa@jadara.edu.jo			
Lecture time	11:30- 13:00 Sun, Tue	**Classroom**	D102			
Semester	First	**Production**		**Updated**		2021-2022
Awards	Bachelor Degree			**Attendance**		Fulltime

Short Description
Java's unique architecture enables programmers to develop a single application that can run across multiple platforms seamlessly and reliably. In this hands-on course, students gain extensive experience with Java and its object-oriented features. Students learn to create robust console and GUI applications and store and retrieve data from relational databases.

Course Objectives
Students will learn how to • Write, compile and execute Java programs • Build robust applications using Java's object-oriented features • Create robust applications using Java class libraries • Develop platform-independent GUIs • Read and write data using Java streams • Retrieve data from a relational database with JDBC

Learning Outcomes
A. Knowledge - Theoretical Understanding

The student upon completion this course will be able to:
  a1: An ability to acquire adequate knowledge to identify main components of computer system "hardware and software". (K2)
  a2: Create a software application using the Java programming language. (K5)

B. Knowledge - Practical Application
The student upon completion this course will be able to   a3: Debug a software application written in the Java programming language. (K4)
C. Skills - Generic Problem Solving and Analytical Skills
b1: Use control structures to solve problem, error detection and correction. (S1)
D. Skills - Communication, ICT, and Numeracy
b2: Apply development of Application and problem-solving using GUI. (S2)

E. Competence: Autonomy, Responsibility, and Context
Teaching and Learning Methods
Distance Learning
Assessment Methods
By quizzes, home works and exams

Course Contents					
Week	**Hours**	**CLOs**	**Topics**	**Teaching & Learning Methods**	**Assessment Methods**
1,2,3	9	a1	Introduction to Java basics Loops, and arrays in Java language	Lecture, discussion	Assignment and Labs,
4,5,6	9	a1, a2	methods, Object Classes	Lecture, discussion	Assignment and Labs,
6,7	6	a3, b1	OOP (Inheritance, Polymorphism, Encapsulation)	Lecture, discussion	Mid Term
8,9,10	9	a1, b1, b2	Graphical User Interface	Lecture, discussion	Assignment and Labs,
11,12, 13, 14	12	a1,a3, b1,b2	NetBeans GUI Applications	Lecture, discussion	Assignment and Labs,
15	2	a1, a2, a3, b1	End of Term Exam		Final exam

Infrastructure	
Textbook	**Introduction to Java Programming, Y,Daniel Liang, 9th Edition**
References	**ISBN 978-0133761313**
Required reading	
Electronic materials	**Available on :** **http://elearning.jadara.edu.jo/CourseContent/index/11823/**
Other	**Any other book related to JAVA Programming**

Course Assessment Plan						
Assessment Method	**Grade**	**CILOs**				
		a1	**a2**	**a3**	**b1**	**c1**
First (Midterm)	30	14	3	10	3	
Second (if applicable)	0					
Final Exam	50	22	12	14	2	
Coursework	20					
Coursework assessment methods — Assignments		5	5	5	5	
Coursework assessment methods — Case study						
Coursework assessment methods — Discussion and interaction						
Coursework assessment methods — Group work activities						
Coursework assessment methods — Lab tests and assignments						
Coursework assessment methods — Presentations						
Coursework assessment methods — Quizzes						
Total	**100**	41	20	29	10	

Plagiarism
Plagiarism is claiming that someone else's work is your own. The department has a strict policy regarding plagiarism and, if plagiarism is indeed discovered, this policy will be applied. Note that punishments apply also to anyone assisting another to commit plagiarism (for example by knowingly allowing someone to copy your code). Plagiarism is different from group work in which a number of individuals share ideas on how to carry out the coursework. You are strongly encouraged to work in small groups, and you will certainly not be penalized for doing so. This means that you may work together on the program. What is important is that you have a full understanding of all aspects of the completed program. In order to allow proper assessment that this is indeed the case, you must adhere strictly to the course work requirements as outlined above and detailed in the coursework problem description. These requirements are in place to encourage individual understanding, facilitate individual assessment, and deter plagiarism.