Jadara University جامعة جدارا

ref# FR/P1/P1/1/v1

COURSE DESCRIPTIONS

Faculty	Science and Information Technology				
Department	Computer Science			**NQF level**	6
Course Title	Visual Programming	**Code**	501317	**Prerequisite**	--------
Credit Hours	3	**Theory**	0	**Practical**	3
Course Leader	Eqbal Zaitoun Zuriqat	**email**	eqbalz@jadara.edu.jo		
Lecturers	Nada Aljarrah	**emails**	n.aljarrah@jadara.edu.jo		
Lecture time	**Sec 1: 8:30- 10:00 PM** Sun, Tu **Sec 2: 10:00- 11:30 PM** Mon, Wed **Sec 3: 1:00- 2:30 PM** Sun, Tu **Sec 4: 11:30- 1:00 PM** Mon, Wed **Sec 5: 11:30- 1:00 PM** Sun, Tu	**Classroom**			
Semester	First	**Production**	2018	**Updated**	2024
Awards	Bachelor Degree			**Attendance**	Fulltime

Short Description
• The course aims teaching students the basics concepts of Java language and the principles and concepts of object-oriented programming. Students will familiarize with the concepts of access control, encapsulation, inheritance and polymorphism, exception handling and building GUI . Finally, students will be taught how to use object-oriented programming methodology to solve programming problems. By the end of the course, students will have a solid foundation in Java programming and the skills to develop functional applications using the Java language.
Course Objectives
By the end of the course, students should be able to: • Introducing students to the Java language and to the principles and concepts of object oriented programming. • Build robust applications using Java's object-oriented features, and java class libraries. • Develop platform-independent GUIs • Familiarize themselves with key Java libraries and frameworks for tasks such as file handling, exception handling
Learning Outcomes
A. Knowledge - Theoretical Understanding
Upon completion of this course, students will be able to: a1. Demonstrate a solid understanding of the object-oriented programming principles and apply object-oriented programming principles, such as encapsulation, inheritance, and polymorphism, to design and implement well-structured Java programs. (K1)
B. Knowledge - Practical Application
C. Skills - Generic Problem Solving and Analytical Skills

Upon completion of this course, students will be able to:

b1. Demonstrate the ability to debug and troubleshoot Java programs, identifying and resolving errors and issues. (S1)

b2. Utilize Java libraries and frameworks effectively to perform common programming tasks, such as file handling, exception handling, and basic GUI development. (S2)

D. Skills - Communication, ICT, and Numeracy

E. Competence: Autonomy, Responsibility, and Context

Teaching and Learning Methods

- Lectures and interactive discussions
- Hands-on coding
- Pair Programming
- Online Resources and Tutorials:
- Assessments and Examinations
- Jadara E-Learning Platform

Assessment Methods

Midterm exam, Final exam, Coding Assignments.

Course Contents					
Week	**Hours**	**CLOs**	**Topics**	**Teaching & Learning Methods**	**Assessment Methods**
1,2	6	a1,b1	• Introduction to Java: Syntax, keywords, and basic program. • Object-Oriented Programming - (OOP) Concepts: Classes and objects, Constructors Encapsulation and Data Abstraction	Lecture, discussion	Assignment and labs,
3,4,5	6	a1,b1	• Object-Oriented Programming (OOP) Concepts: Inheritance, and Polymorphism. • Packages & Returning Objects	Lecture, discussion	Assignment and labs,
5,6,7	9	b2, b1	• Building Graphical User Interface	Lecture, discussion	Assignment and labs,
8,9	6	a1, b1,b2	Exception Handling	Lecture, discussion	Midterm exam
15	2	a1, b1,b2	End of Term Exam		Final exam

Infrastructure	
Textbook	**[1] Paul Deitel; Java How to Program: (early objects), 9th Edition, Prentice Hall, 2011, ISBN-10: 0132575663**
References	**ISBN 978-0133761313**
Required reading	
Electronic materials	Available on http://elearning.jadara.edu.jo/CourseContent/index/17562/
Other	Any other book related to Java Programming

Course Assessment Plan						
Assessment Method		**Grade**	**CILOs**			
			a1	**b1**	**b2**	
First (Midterm)		30	14	6	10	
Second (if applicable)						
Final Exam		50	30	10	10	
Coursework						
Coursework assessment methods	Assignments	10		5	5	
	Case study					
	Discussion and interaction	10	10			
	Group work activities					
	Lab tests and assignments					
	Presentations					
	Quizzes					
Total		**100**	54	21	25	

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.