

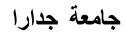




ref# FR/P1/P1/1/v1

# Jadara University





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	



ref# FR/P1/P1/1/v1

### 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:

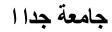
a1. Demonstrate a solid understanding of the object-oriented programming principles and apply object-oriented programming principles, such as encapsulation, inheritance, and polymorphism, to design and implement well-structured Java programs. (K1)

**B. Knowledge - Practical Application** 

C. Skills - Generic Problem Solving and Analytical Skills

## Jadara University





#### ref# FR/P1/P1/1/v1

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.

# Jadara University



ref# FR/P1/P1/1/v1

Course Contents						
Week	Hours	CLOs	Topics	Teaching & Learning Methods	Assessment Methods	
1,2	6	a1,b1	<ul> <li>Introduction to Java: Syntax, keywords, and basic program.</li> <li>Object-Oriented Programming         <ul> <li>(OOP) Concepts: Classes and objects, Constructors</li> <li>Encapsulation and Data Abstraction</li> </ul> </li> </ul>	Lecture, discussion	Assignment and labs,	
3,4,5	6	a1,b1	<ul> <li>Object-Oriented Programming (OOP) Concepts: Inheritance, and Polymorphism.</li> <li>Packages &amp; Returning Objects</li> </ul>	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	



ref# FR/P1/P1/1/v1

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 I	Exam	50	30 10 10				
Course	Coursework						
	Assignments	10		5	5		
men	Case study						
ssess	Discussion and interaction	10	10				
vork asse methods	Group work activities						
Coursework assessment methods	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.