هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

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Course Specification

Course Title:	**Object-Oriented Programming**
Course Code:	**2333 CIS**
Program:	**Information Systems**
Department:	**NA**
College:	**Applied College**
Institution:	**King Khalid University**
Version:	**1**
Last Revision Date:	**12 August 2023**

Table of Contents:

A. General information about the course:

Course Identification					
1. Credit hours:	3				
2. Course type					
a.	University ☐	College ☐	Department☐	Track☐	Others☒
b.	Required ☒	Elective☐			
3. Level/year at which this course is offered:	4th Level				
4. Course general Description: Object-oriented programming. Emphasis on the fundamentals of structured design with classes, including development, testing, implementation, and documentation. This course includes Inheritance, Polymorphism and Graphical User Interface (GUI). The course also covers the advanced topics like JDBC, Multithreading, Applets and network programming. The Java programming language is used as the teaching vehicle for this course.					
5. Pre-requirements for this course (if any): 1332 CIS					
6. Co- requirements for this course (if any):					
7. Course Main Objective(s): This course is intended to: • Demonstrate a deep understanding of various object-oriented design techniques. • Develop object-oriented applications in Java. • Design Java applet for internet applications. • Develop programming applications with multithreading. • Develop Java graphical user interface and animations. • Develop advanced software applications using JDBC an Client/Server technology					

1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	64	100
2.	E-learning		
3.	Hybrid • Traditional classroom • E-learning		
4.	Distance learning		

2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	32
2.	Laboratory/Studio	32
3.	Field	
4.	Tutorial	
5.	Others (specify)	
	Total	64

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Understand java features, applets and multithreading.	k2	Lectures + Lab	Exams, Assignments, Quizzes
1.2	Describe Java graphical user interface and animation tools.	k1 k2	Lectures + Lab	Exams, Assignments, Quizzes
1.3	Understand advanced topics such as networking, client/server and JDBC.	k2	Lectures + Lab	Exams, Assignments, Quizzes
2.0	Skills			
2.1	Implement robust applications using Java class libraries.	s1	Lectures + Lab	Exams, Assignments, Quizzes
2.2	Develop platform-independent GUI and JDBC programs.	s1 s2	Lectures, Lab, group discussion	Exams, Assignments, Quizzes
2.3	Design application projects using Java platform.	s3 s4	Lectures, Lab, group discussion	Exams, Lab Assignments, Quizzes
3.0	Values, autonomy, and responsibility			
3.1	Practice the concepts to employ to real life project applications.	v2	Lectures, Lab, Case Study	Exams, Assignments and presentation
3.2	Communicate and share the work with development team.	v3	Presentations, Lab	Exams, Assignments and presentation

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to Object Oriented Programming principles and Techniques. Object, Classes, encapsulation, Methods, Inheritance and data abstraction.	18
2	Inheritance and Polymorphism, overloading and overriding	10

3	Multi –Threading	6
4	Networking	8
5	JDBC Basics	6
6	GUI and Event-Driven Programming	8
7	Applets	6
8	Revision	2
Total		64

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quiz 1	4	5
2.	Midterm Exam 1	7	10
3.	Practical Assessment	1 to 16	30
4.	Midterm Exam 2	12	10
5.	Quiz 2	14	5
6.	Final Exam	After week 16	40

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	1. An Introduction to Object-Oriented Programming with JAVA – Fourth Edition, Thomas Wu, McGraw Hill, 2006 2. JAVA : The Complete Reference– Seventh Edition, by Herbert Schildt, Tata McGraw-Hill Publishing Company Limited.
Supportive References	Ivor Horton's Beginning JAVA 2 JDK 5 Edition, by Ivor Horton, Wiley Publishing, Inc.
Electronic Materials	https://www.lms.kku.edu.sa
Other Learning Materials	https://www.java.com/en/about/oracleacademy.jsp

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	▪ Lecture Rooms with data show ▪ Laboratories with Internet Connection.
Technology equipment (projector, smart board, software)	Eclipse IDE for Java Developers
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect
Effectiveness of students assessment	Course Teacher	Direct
Quality of learning resources	Program Supervisor, Quality Unit	Direct
The extent to which CLOs have been achieved	Course Teacher	Direct
Other	Course Teacher, Quality Unit	Direct

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	