Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكــة العربيــة السعوديــة
الهيئــة الوطنيــة للتقويــم
والاعــتـمــاد الأكــاديـمــي

ATTACHMENT 5.

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

Course Specification
(CS)

Object Oriented Programming

14011102-4

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Course Specifications

Institution	Umm Al Qura University	Date 7 / 7 / 1437
College/Department	College of Computers and Information Systems	

A. Course Identification and General Information

1. Course title and code: 14011102-4 Object Oriented Programming

2. Credit hours 4

3. Program(s) in which the course is offered. Computer Science

4. Name of faculty member responsible for the course Curriculum Committee

5. Level/year at which this course is offered 2nd year / level 4

6. Pre-requisites for this course 14011101-4 Computer Programming

7. Co-requisites for this course

8. Location if not on main campus Al-Abidiyah campus (Boys) and Al-Zaher campus (Girls), Makkah Al Mukarramah

9. Mode of Instruction (mark all that apply)

   a. traditional classroom   ✓   What percentage?   100

   b. blended (traditional and online)   What percentage?

   c. e-learning   What percentage?

   d. correspondence   What percentage?

   f. other   What percentage?

   Comments:

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B Objectives

1. What is the main purpose for this course?
By completing this course the students should be able to: 1.   Students will be familiar with the key principles of object-oriented programming   2.   Students will understand object oriented concepts including - classes, objects, inheritance, data abstraction, encapsulation, and polymorphism   3.   Students will learn how to design applications using object oriented concepts   4.   Students will appreciate the benefits of code reuse by learning how to make use of off-the-shelf Java libraries ~~such as the Java String.~~
2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)   1.   Increase the use of the latest Web-based reference material and textbooks.   2.   Review and update the course materials as part of preparation to teach this course.   3.   Gather students' opinions about their success in achieving course objectives by the end of the semester. This is done through number of survey questions that map one-to-one with course objectives.   4.   Review and indicate which assessment instrument(s) to be used for assessing each course outcome, and what grading rubric will be used for each instrument.

C. Course Description (Note: General description in the form used in Bulletin or handbook)

Course Description:

1. Topics to be Covered		
List of Topics	No. of Weeks	Contact hours
Java and Object Oriented programming overview and class diagram	2	3
Object Oriented Programming Concepts: Classes and Objects, attributes, methods, constructors, methods overloading attributes scope (global and local variables) and using this	2	3
Java Inheritance: Interfaces, abstract classes, abstract methods, classes inheritance, methods overriding, using super	2	3

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Extra Object Oriented Programming Concepts : Modifiers and static, packages, overriding utility methods(toString, equals and compareTo) Objects comparison and parameters passing	2	3
Collections (vector and ArrayList), generic collections and Wrapper Classes	2	3
Exception handling(try…catch) and Java API examples	2	3
UML(Use case diagram, Sequence diagram, Class diagram)	2	3

2. Course components (total contact hours and credits per semester):

	Lecture	Tutorial	Laboratory or Studio	Practical	Other:	Total
Contact Hours	30	15	42			
Credit	???	???	???			

3. Additional private study/learning hours expected for students per week.

6 hours

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	**Knowledge**		
1.1	Students will understand object oriented concepts including – classes, objects, inheritance, data abstraction, encapsulation, and polymorphism	Lectures, tutorial, labs, assignments	Quiz, lab evaluation, projects, assignment evaluation
1.2	Students will learn how to design applications using object oriented design methodology	Lectures, tutorial, labs, assignments	Quiz, lab evaluation, projects, assignment evaluation
1.3	Students will appreciate the benefits of code reuse by	Lectures, tutorial, labs,	Quiz, lab evaluation, projects,

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		learning how to make use of off-the-shelf Java libraries ~~such as the Java String~~	assignments	assignment evaluation
2.0	**Cognitive Skills**			
2.1	Will acquire the ability to understand basic algorithm	Lectures, tutorial, labs	Quiz, lab evaluation, projects
2.2	Will acquire the ability to design basic algorithm	Lectures, tutorial, labs	Quiz, lab evaluation, projects
3.0	**Interpersonal Skills & Responsibility**			
3.1			
3.2			
4.0	**Communication, Information Technology, Numerical**			
4.1	Improve the ability to work in a group	Projects	Project evaluation
4.2			
5.0	**Psychomotor**			
5.1	Demonstrate skills in using computer machines and software tools to solve computer problems	Lab exercise, lab demonstration	Lab. exams In-lab. evaluation
5.2	Perform a task with minimum assistance	Lab exercise	Lab. exams In-lab. evaluation

5. Map course LOs with the program LOs. (Place course LO #s in the left column and program LO #s across the top.) (I = Introduction   P = Proficient   A = Advanced)

Course LOs #	Program Learning Outcomes (Use Program LO Code #s provided in the Program Specifications)														
	1.1	**1.2**	**2.1**	**2.2**	**2.3**	**2.4**	**2.5**	**3.1**	**3.2**	**3.3**	**4.1**	**4.2**	**4.3**	**5.1**	**5.2**
1.1			P	P	P	P	P			I		P	P		
1.2			P	P	P	P	P			I		P	P		
1.3			P	P	P	P	P			I		P	P		
2.1			P	P	P	P	P			I		P	P		
2.2			P	P	P	P	P			I		P	P		
4.1								P		I	P				
5.1										I				P	P
5.2										I				P	P

6. Schedule of Assessment Tasks for Students During the Semester			
	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Assignments	-	0

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2	Quiz 1	3	5
3	Quiz 2	7	5
4	Group Project/ practical exam	8	2030
5	Midterm	9	20
6	Quiz 3	12	5
7	Quiz 4	14	5
8	Final	16	4030

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

Office hours between 2-4 hours per week.

E Learning Resources

1. List Required Textbooks
Java: How to Program, 9e, Dietel and Dietel, Pearson 0273759760

2. List Essential References Materials (Journals, Reports, etc.)
Lecture slides and notes

3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)
Object-Oriented Analysis and Design: Undergraduate Topics in Computer Science, Sarnath Ramnath and Brahma Dathan, Springer, ISBN 978-1-84996-521-7
Head First Java, 2nd Edition by Kathy Sierra and Bert Bates, 2005

4. List Electronic Materials, Web Sites, Facebook, Twitter, etc.
Java API - Oracle Documentation: http://docs.oracle.com/javase/7/docs/api/

The Java Tutorial: http://docs.oracle.com/javase/tutorial/

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The Java Tutorials: http://docs.oracle.com/javase/tutorial/getStarted/index.html
Language Basics: http://docs.oracle.com/javase/tutorial/java/nutsandbolts/index.html
Java for Complete Beginners: http://www.homeandlearn.co.uk/java/java.html

5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.
The main textbook: Java example codes

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)
Lecture room (max 40 students)
Computer lab (max 20 students)
Overhead projector and internet connection
2. Computing resources (AV, data show, Smart Board, software, etc.)
Integrated Development Environment (e.g., NetBeans, Eclipse, JBuilder).
Java Development Kit (JDK)
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching
A student-feedback form is distributed at the end of the course.

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2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department
3 Processes for Improvement of Teaching
4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)
5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

Name of Instructor: _____

Signature: _____ Date Report Completed: _____

Name of Course Instructor _____

Program Coordinator:_____

Signature: _____ Date Received: _____