ATTACHMENT 5.

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

T6. Course Specifications (CS)

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: 14014110-3 Advanced Web Programming

2. Credit hours 3

3. Program(s) in which the course is offered.
(If general elective available in many programs indicate this rather than list programs)
Computer Science

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

5. Level/year at which this course is offered: 4th year / (level 9 or 10)

6. Pre-requisites for this course (if any): 14013104-3 Internet Applications

7. Co-requisites for this course (if any): None

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	X	What percentage?	100
b. blended (traditional and online)		What percentage?	
c. e-learning		What percentage?	
d. correspondence		What percentage?	
f. other		What percentage?	

Comments:

B Objectives

1. What is the main purpose for this course? The goal of this course is to teach students to build professional web applications using industrial standards. 1. Students will review how to build basic web applications using HTML, CSS and JavaScript for building the application front-and and JavaServlet and JSP for building the application back end 2. Students will learn to use asynchronous JavaScript to build responsive web application 3. Students will learn to use session management and advanced caching techniques 4. Student will learn to use industrial framework such as Spring 5. Students will get the experience of working in groups to design and develop complete website projects.
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. As this subject domain is wide and updated regularly, the course objectives will be reviewed regularly to reflect the new trends in advanced web programming, technologies and applications. 2. Increase the use of the latest Web-based reference material and textbooks. 3. Review and update the course materials as part of preparation to teach this course. 4. 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. 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: This is a practical course that will enable students to develop advanced skills in multi-tier website development and administration, exploring front-end and back-end Web technologies such as HTML, CSS and Javascript, Servlets, JSP and integrations with relational databases. The course will focus also on building complete websites and issues related to session management, authentication, AJAX (Asynchronous Javascript And Xml) and CRUD (Create, Read, Update and Delete) database operations.

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
Revision on HTML , CSS and JavaScript	3	2
Object Oriented JavaScript and dynamic HTML	3	2
Servlet Programming, JSP, session management, database integration	3	2
XML/JSON (Extensible Mark-up Language/ JavaScript Object Notation)	1	2
AJAX (Asynchronous Javascript)-based web applications	2	2
Using web framework (such as Spring)	4	2

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

	Lecture	Tutorial	Laboratory or Studio	Practical	Other:	Total
Contact Hours	30	0	30	0	0	60
Credit	3	0	1	0	0	4

3. Additional private study/learning hours expected for students per week. 4

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 review how to build basic web	Lectures, tutorial, labs	Quiz, lab evaluation, projects

	applications using HTML, CSS and JavaScript for building the application front-and and JavaServlet and JSP for building the application back end		
1.2	Students will learn to use asynchronous JavaScript to build responsive web application	Lectures, tutorial, labs	Quiz, lab evaluation, projects
1.3	Students will learn to use session management and advanced caching techniques	Lectures, tutorial, labs	Quiz, lab evaluation, projects
1.4	Student will learn to use industrial framework such as Spring	Lectures, tutorial, labs	Quiz, lab evaluation, projects
2.0	**Cognitive Skills**		
2.1			
2.2			
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			
5.2			

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)**						
	1.2	**2.1**	**2.3**	**3.1**	**4.3**	**5.1**	**5.2**
1.1	A	P	P				
1.2	A	A	A	A	P	A	A
1.3	A	A	A	A	P	A	A
1.4	P	P	P	A	P	P	P
4.1				A			

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	Quiz 1	6	10
2	Quiz 2	13	10
3	Project 1	11	15
4	Project 2	15	15

5	Mid-term	12	20
6	Final	17	30

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 • HTML5 and CSS3, ElizabEth Castro, Bruce hyslop, 7th Edition, Peachpit Press, ISBN: 0321719611 • JavaScript: The Definitive Guide, David Flanagan, 6th Edition, O'Reilly, ISBN: 0596805527 • Java Servlet Programming, Jason Hunter, William Crawford, 2nd Edition, O'Reilly, ISBN: 0596000405 • Ajax: The Definitive Guide 1st Edition, Anthony Holdener III, O'Reilly, ISBN: 0596528388
2. List Essential References Materials (Journals, Reports, etc.) Lecture slides and notes
3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)
4. List Electronic Materials, Web Sites, Facebook, Twitter, etc.
5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

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.) Regular text editors Regular Web browsers Java Development Kit (JDK) Integrated Development Environment (e.g., NetBeans, Eclipse, JBuilder). MySQL database management system
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.
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. The course materials will be regularly reviewed by the course instructor and the curriculum committee in order to keep it updated.

Name of Instructor: _____

Signature: _____ Date Report Completed: _____

Name of Course Instructor _____

Program Coordinator:_____

Signature: _____ Date Received: _____