



Course Specification

(Bachelor)

Course Title: **Application Development**

Course Code: **IS1337**

Program: **Bachelor in Information Systems**

Department: **Information systems**

College: **College of Computer and Information Sciences**

Institution: **Imam Mohammad Ibn Saud Islamic University**

Version: **2**

Last Revision Date: **21st July 2025**

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Table of Contents

A. General information about the course:.....	3
B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods.....	4
C. Course Content	5
D. Students Assessment Activities	6
E. Learning Resources and Facilities.....	6
F. Assessment of Course Quality	7
G. Specification Approval	7





A. General information about the course:

1. Course Identification

1. Credit hours: 3 credit hours (lectures:2 Lab:1)

2. Course type

A. ☐ University ☐ College ☒ Department ☐ Track ☐ Others
B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: Fourth Year

4. Course general Description:

This course will introduce basic topics on Application development especially Web Programming. More specifically the students are expected to acquire the necessary skills to use HTML, CSS3 and related technologies to create simple web sites. Furthermore, they will learn Java script and are expected to build more sophisticated sites. After learning Java script skills, they will learn PHP in order to be capable of creating simple client-server solutions. Students will also explore emerging AI technologies and their integration into modern web applications.

5. Pre-requirements for this course (if any):

IS 1321 Enterprise Architecture

6. Co-requisites for this course (if any):

No Co-requisites

7. Course Main Objective(s):

1. What is the main purpose for this course?

Up on the completion of this course, students will be able to understand all basic concepts concerning Web programming issues and build web sites utilizing their knowledge on databases and programming prior to their program schedule. In other words, the goal is to make them capable of performing simple client – server solutions acquiring the necessary skills

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):

- Periodic review of the course specification by Quality Assurance Committee.
- Course evaluation form filled by the respective teaching staff at the end of each semester



In the light of above feedback, necessary actions are taken to improve the course.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	3 hours/week (Lecture) 2 hours/week (Lab)	100%
2.	E-learning		
3.	Hybrid - Traditional classroom - E-learning		
4.	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	30
3.	Field	
4.	Tutorial	
5.	Others (specify)	
6		60

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

Code	Course Learning Outcomes	Code of CLOs aligned with PLOs (Performance Level)	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Familiarize with current and emerging technologies related to Application development especially web	K1(I)	Class Lectures	Lab Exams Lab Assignments



Code	Course Learning Outcomes	Code of CLOs aligned with PLOs (Performance Level)	Teaching Strategies	Assessment Methods
	application development			
1.2	Identify basic client-server programming concepts and database integration methods in web applications	K2(I)	Class Lectures	Lab Exams Lab Assignments
1.3	Understand basic concepts of AI integration in web applications	K1(I)	Class Lectures	Lab Exams Lab Assignments
2.0	Skill			
2.1	Analyze web application requirements through stakeholder communication to identify appropriate HTML5 solutions	S1(I)	Class Lectures, Labs	Lab Exams Project/Presentation
2.2	Apply CSS3 and related technologies to create friendly user web sites	S4(P)	Class Lectures, Labs	Lab Exams Project/Presentation
2.3	Develop intermediate-level sophisticated websites using Java Script.	S2(P), S4(P)	Class Lectures, Labs	Lab Exams Project/Presentation
3.0	Values, autonomy, and responsibility			
3.1	Function effectively on teams to accomplish a common goal.	V1(I), V2(I)	Class Discussion, Lecture	Project Report
3.2	Present a topic in a compelling manner.	V3(I)	Class Discussion	Project Presentation

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to Internet technologies, introduction to HTML5, basic elements, meta elements, tables - teaching and self-learning	6



2.	HTML5 forms, internal linking - teaching and self-learning	6
3.	CSS3, backgrounds, images, menus - teaching and self-learning	6
4.	Introduction to JavaScript, selection and repetition structures - teaching and self-learning	6
5.	JavaScript functions, events, objects - teaching and self-learning	6
6.	JavaScript arrays - teaching and self-learning	6
7.	Introduction to PHP and client-server programming - teaching and self-learning	6
8.	PHP and SQL/No-SQL Databases - teaching and self-learning	6
9.	AI Integration in Web Applications & Project Development	6
10.	Project Discussions	6
Total		60

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quiz	4,11	10%
2.	Midterm Exam	8	20%
3.	Assignment	6,12	10%
4.	Group Project	15	20%
5.	Final Exam	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	R. Connolly, R. Hoar, Fundamentals of Web Development, 2021, Perason ISBN-9780135863336 H. M. Deitel, P. J. Deitel, Internet and World Wide Web How to Program 5thEdition, 2012, Pearson ISBN-13: 9780132151009
Supportive References	N/A
Electronic Materials	- Imam University's Blackboard will be used for out-of-class-room interaction with the students. http://www.w3schools.com/ (tutorials) http://www.how-to-build-websites.com/ (tutorials) http://www.webstepbook.com/
Other Learning Materials	N/A



2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	1. At least 30 seats 2. A projector connected to a PC preferably with Internet connection 3. Sliding board
Technology equipment (projector, smart board, software)	
Other equipment (depending on the nature of the specialty)	N/A

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect using course evaluation survey
Effectiveness of Students assessment	Faculty members	Direct method using TOS file
Quality of learning resources	Students and Faculty	Indirect using course evaluation survey and faculty survey
The extent to which CLOs have been achieved	Faculty members	Direct method using TOS file
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	IS CURRICULUM APPROVAL & DEVELOPMENT COMMITTEE IS QAC / / IS COUNCIL
REFERENCE NO.	
DATE	

