Course Specification

— (Bachelor)

Course Title:	**Web Technologies 1**
Course Code:	**CS1008**
Program:	**Computer Science**
Department:	**Computer Science& Engineering**
College:	**Computer Science and information technology**
Institution:	**Albaha University**
Version:	**v2**
Last Revision Date:	**09/10/2023**

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A. General information about the course:

1. 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: (Level 6 / 2nd Year)

4. Course general Description:

Lecture:
This course covers concepts and techniques used in constructing interactive web applications. Browser-side web facilities such as HTML5, cascading stylesheets, JavaScript, and the document object model. Building on the basic Web Technologies, students will learn to create more dynamic and interactive websites using JavaScript. Advanced HTML, CSS, and basic JavaScript enhance the client-side webpages and students will learn to use these technologies for their specific purposes.

LAB
The lab is planned to give students practical experiments on WEB Page Development. Students will also learn how to build Static web site using HTML5, Browser-side web facilities such as cascading style sheets, java script, HTML Forms.

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

Databases 1 (CS1007)

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

None

7. Course Main Objective(s):

The main purpose for this course is to teach students how to:
- **Describe the Web site creation process.**
- **Develop web pages using HTML, HTML5.**
- **Use Cascading Style Sheets, including CSS, CSS3.**
- **Develop Web Application using Client-Side program (Java Script).**
- **Experiment with JQuery to enhance their pages**
- **Design the layout of web sites.**
- **Design navigation of web sites,**
- **Practice on standards-based web sites that are portable across different operating systems, browsers, and web-enabled devices.**

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	**55**	**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**	**33**
2.	**Laboratory/Studio**	**22**
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		55

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	Describe the Web site creation process.	**K1**	- **Lectures** - **Assignments** - **lab project**	• Rubrics for assignments • Midterm exams • Project (rubric) • Final Exam
1.2	Define navigation of web sites,	**K2**	- **Lectures** - **Assignments** - **lab project**	• Rubrics for assignments • Midterm exams • Project (rubric) • Final Exam
1.3	Explain the layout of web sites.	**K2**	- **Lectures** - **Assignments**	• Rubric for assignments • Midterm exams • Final Exam

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
2.0	**Skills**			
2.1	Develop web pages using HTML, HTML5	**S1**	- **Lectures** - **Assignments** - Lab Exercises - Lab project	• Quizzes • Midterm exams • Final Exam • Project (rubric)
2.2	Use Cascading Style Sheets, including CSS, CSS3.	**S2**	- **Lectures** - Assignments - **Lab Exercises** - **lab project**	• Quizzes • Midterm exams • Final Exam • Project (rubric)
2.3	develop Web Application using Client-Side program (Java Script). And Introduction to jQuery, animation, scaling and menus	**S3**	- **Lectures** - Assignments - **Lab Exercises** - **lab project**	• Quizzes • Midterm exams • Final Exam • Project (rubric)
3.0	**Values, autonomy, and responsibility**			
3.1	Work both independently and collaboratively	V1	- **Small groups**	• Project (rubric)
3.2	Practice concepts and techniques in oral presentations	**V2**	- **Oral Presentations**	• Project (rubric)

C. Course Content

No	List of Topics	Contact Hours
1.	Web site design Principles and developing web static web site using HTML5	**6**
2.	Cascading Style Sheet (CSS)	**6**
3	Introduction to JavaScript and its constructs	**6**
4	Variables, constants, Conditional Statements, assignment statements, loops	**3**
5	Data types, Functions, Arrays, Random numbers, String methods	**3**
6	Review of HTML forms and form validation using JavaScript.	**3**
7	Introduction to JQuery, animation, scaling, menus, special effects	**3**
8	More JavaScript and JQuery in web pages, labs and in class exercises	**3**
Total		**33**

No	List of Topics (Lab)	Contact Hours
1	Standard HTML Document Structure and Basic Text Formatting	2
2.	Images, Hypertext Links, Lists, Tables, Frames, Forms, Multimedia in HTML	2
3.	Introduction and Levels of Style Sheets	2
4.	Style Specification Formats, Style classes, Properties and Property values, color, the <span> and <div> tags	2
5.	Basics of Java script and Document Object Model	2
6.	DOM Event Model and Element Positioning	2
7	Moving elements and Element visibility	2
8	Changing colors and fonts	2
9	Dynamic content and stacking elements and dragging, dropping elements	2
10	Locating the mouse cursor and reacting to a mouse click	2
11	WEB Forms and form validation	2
Total		22

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Weekly assignments exercises/ programming assignments	Every Two Weeks	10%
2.	Quizzes	Week 8	10%
3.	Mid Term 1	Week 6	20%
4	Lab Report	Every Two Weeks	5%
5	LAB Project	Week 11	15%
6	Final Exam	Week 12-13	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	• Principles of Web Design: The Web Technologies Series, 5th Edition **Author: Joel Sklar, Published: © 2012, Print ISBN: 9781111528706** Pages: 616 -- • PHP, MySQL, JavaScript & HTML5 All-in-One For Dummies Author: Steve Suehring, Janet Valade,Print, 720 pages, April 2013,ISBN: 978-1-118-21370-4
Supportive References	Computer Science Curriculum 2013 – http://cs2013.org - ACM (Association for Computer Machinery) Curricula Recommendations - http://www.acm.org/education/curricula-recommendations
Electronic Materials	ACM (Association for Computer Machinery) web site - http://www.acm.org/ • IEEE Computer Society web site - http://www.computer.org/portal/web/guest/home • Access to the Saudi Digital Library (SDL). Using the learning management system of the university – Rafid System (https://lms.bu.edu.sa/).
Other Learning Materials	Komodo IDE 12. Notepad ++ Dreamweaver 8.0

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	• A classroom or lecture hall with whiteboard for 25 students. • A laboratory with 25 computers.
Technology equipment (projector, smart board, software)	• All students shall have: o A computer with Server Software, other common programming languages installed such as Dreamweaver 8.0 or Komodo IDE 12
Other equipment (depending on the nature of the specialty)	The laboratory should have computers with Apache Server programming.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Exams Evaluation Committee Students	Direct: Exam Review Indirect: Survey
Effectiveness of Students assessment	Faculty	Direct: Exams
Quality of learning resources	Faculty Students	Direct: Survey Indirect: Survey
The extent to which CLOs have been achieved	Faculty	Direct: Exams
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	