Course Specification
(Bachelor)

Course Title:	**Internet and Web Applications Development**
Course Code:	**314CIS-4**
Program:	**Bachelor of information systems**
Department:	**Information Systems**
College:	**Computer Science and Information systems**
Institution:	**Najran University**
Version:	*Course Specification Version Number*
Last Revision Date:	*Pick Revision Date.*

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A. General information about the course:

1. Course Identification

1. Credit hours: (4)					
2. Course type					
A.	☐University	☐College	☒ Department	☐Track	☐Others
B.	☒ Required		☐Elective		
3. Level/year at which this course is offered: (Level 10/ Year 4)					
4. Course General Description:					
This course explores advanced and modern concepts and technologies used in the development of electronic business applications. Topics include component development and reuse, distributed object technologies, multitier applications, client-side versus server-side technologies, service-oriented architectures, enterprise application integration, data transformation, role of open-source technologies, and finally e-business application installation and deployment issues.					
5. Pre-requirements for this course (if any)**:**					
6. Co-requisites for this course (if any)**:**					
7. Course Main Objective(s):					
The students should be able to understand the concepts of internet technologies and develop real-time applications.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	90	100%
2	E-learning		
3	Hybrid • Traditional classroom		

No	Mode of Instruction	Contact Hours	Percentage
	• E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	45
2.	**Laboratory/Studio**	30
3.	**Field**	
4.	**Tutorial**	15
5.	**Others (specify)**	
Total		90

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

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Identify the technologies in the development of internet application in the modern world.	K1	Interactive Lectures, Group Discussions	Presentation, Midterm Exams, Quiz, Final Exam
1.2				
...				
2.0	**Skills**			
2.1	Evaluate the several web technologies and application architectures.	S1, S2, S3	Interactive Lectures, Group Discussions	Presentation, Midterm Exams, Quiz, Final Exam
2.2	Design a web page using HTML and other design approaches.	S2	Interactive Lectures, Group Discussions, Lab Demonstrations, Mini Project	Presentation, Midterm Exams, Quiz, Assignments, Lab Exam, Final Exam
2.3	Apply the modern web development tools to	S1, S2	Interactive Lectures, Group Discussions,	Presentation, Midterm Exams,

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
	design the interactive web applications.		Lab Demonstrations, Mini Project	Quiz, Assignments, Lab Exam, Final Exam
2.4	Develop the real Internet Applications using the latest application architectures.	S1, S2, S3	Interactive Lectures, Group Discussions, Lab Demonstrations, Mini Project	Presentation, Midterm Exams, Quiz, Assignments, Lab Exam, Final Exam
2.5	Evaluate a website related to reliability, availability, and security.	S1, S2, S3	Interactive Lectures, Group Discussions	Presentation, Midterm Exams, Quiz, Final Exam
3.0	**Values, autonomy, and responsibility**			
3.1	Develop leadership, teamwork, self-learning in the implementation of the of the business solution works.	V1, V2	Assignments, Group Discussions	Presentation, Assignments
3.2				
...				

C. Course Content

No	List of Topics	Contact Hours
1.	Explores advanced and modern concepts and technologies used in the development of internet applications.	12
2.	Application development platform and Architecture, Distributed object technologies	8
3	Client-side programming such as HTML, CSS, JavaScript	20
4	Client-side versus server-side technologies	10
5	Server-side database management	6
6	Web Server	6
7	Enterprise application integration	6
8	Data transformation and open-source technologies	8
9	E-business application installation and deployment issues.	6
10	Web evaluation, security, and privacy issues	8
Total		**90**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes	TBA	10%
2.	Midterm Exam	7th week	20%
3.	Presentation	TBA	5%
4.	Assignments	10th week	5%
5.	Lab Activities	TBA	10%
6.	Final Lab Exam	11th week	10%
7.	Final Exam	12th week	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	**John Dean, Web Programming with HTML5, CSS, and JavaScript, Jones & Bartlett Learning**
Supportive References	**H. M. Deitel, P. J. Deitel, Internet & World Wide Web How to Program, Prentice Hall.** **Hugh E. Williams and David Lane, Web Database Applications with PHP, and MySQL, O'Reilly & Associates.**
Electronic Materials	**http://www.w3schools.com/**
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Lecture Rooms and a whiteboard.
Technology equipment (projector, smart board, software)	Desktop/ Laptop computer Multimedia Projector
Other equipment (depending on the nature of the specialty)	A File cabinet to keep Class Stuff, Markers, papers and students Files, and a printer to print program screenshots.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Student	Indirect Survey
Effectiveness of Students assessment	Faculty	Direct using CLO Assessment sheet
Quality of learning resources	Student	Indirect Survey
The extent to which CLOs have been achieved	Faculty	Indirect Survey
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	**17TH DEPARTMENT COUNCIL**
REFERENCE NO.	**14460810-0976-00017**
DATE	**10/02/2025**