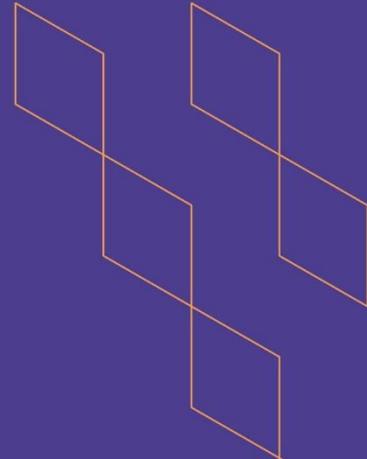




T-104  
2022

## Course Specification



Course Title: <b>Internet application development</b>
Course Code: 3-حال 266
Program: <b>programming and databases</b>
Department: <b>computer department</b>
College: <b>applied college</b>
Institution: <b>NAJRAN university</b>
Version: <b>T -104 2022</b>
Last Revision Date: 19/8/ 2023



## Table of Contents:

Content	Page
A. General Information about the course	3
1. Teaching mode (mark all that apply)	3
2. Contact Hours (based on the academic semester)	3
B. Course Learning Outcomes, Teaching Strategies and Assessment Methods	4
C. Course Content	5
D. Student Assessment Activities	5
E. Learning Resources and Facilities	6
1. References and Learning Resources	6
2. Required Facilities and Equipment	6
F. Assessment of Course Quality	6
G. Specification Approval Data	6



## A. General information about the course:

### Course Identification

1. Credit hours: (1 + 2) 3

#### 2. Course type

a. University  College  Department  Track  Others

b. Required  Elective

3. Level/year at which this course is offered: Level 4

#### 4. Course general Description

This course is designed to provide all about advanced JavaScript, web base application, and top skill tools such as MongoDB, Express.js, Angular, and Node.js. This course covers in depth the concepts of web programming with PHP and MySQL, and learn how to explore the special features of each. Discussion of different databases including Firebase and Mongoddb.

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

**286-cs-3 Web sites programming and designing**

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

#### 7. Course Main Objective(s)

- Recognize the Syntax and Semantics of Client side and Server side technologies with Programming Language. (Such as Advance JavaScript, MongoDB, Express.js, Angular, and Node.js and PHP & MySQL)
  - Apply the modern web development tools to design the interactive web applications.
  - Understand PHP Fundamentals and Building Blocks with practical implementation in Projects
  - Making web pages dynamic with the variety of PHP Techniques.
- Understand the various databases including Firebase and Mongoddb.

### 1. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	4 hours per week	95%
2.	E-learning		5%
3.	Hybrid <ul style="list-style-type: none"> <li>• Traditional classroom</li> <li>• E-learning</li> </ul>		
4.	Distance learning		





## 2. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	2*15=30Hours
2.	Laboratory/Studio	2*15=30 Hours
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		60 Hours

## 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 Internet Services and its applications.	K1=I	<ul style="list-style-type: none"> <li>Lectures,</li> <li>Brainstorming,</li> <li>Class</li> <li>Discussion</li> <li>Lab Reports</li> </ul>	<ul style="list-style-type: none"> <li>Class work</li> <li>home works assignments</li> <li>Quizzes</li> <li>Midterm Exams</li> <li>Final Exam</li> </ul>
1.2	Explain all the web and internet tools of technologies.	K2=I		
...				
2.0	Skills			
2.1	Designing and programming the web pages using JavaScript, MongoDB, Express.js, Angular, and Node.js	S1=M	<ul style="list-style-type: none"> <li>Lecture</li> <li>Brainstorming</li> <li>Lab Demonstration</li> <li>Project</li> <li>Exam</li> <li>Group Reports</li> <li>Lab Reports</li> </ul>	<ul style="list-style-type: none"> <li>home works assignments</li> <li>Quizzes</li> <li>Midterm Exams</li> <li>Final Exam</li> </ul>
2.2	Programming server side database using PHP & MySQL.	S2=M		
...				
3.0	Values, autonomy, and responsibility			
3.1	Demonstrating the latest internet application architectures.	C1=P	<ul style="list-style-type: none"> <li>Small group work and presentations projects</li> </ul>	<ul style="list-style-type: none"> <li>Group reports and presentations</li> </ul>
3.2				



## C. Course Content

No	List of Topics	Contact Hours
1.	Overview of the Internet (definitions, developments, services and applications) Lab: Nil	2
2.	Programming the web pages using advance JavaScript Lab: Creating Web pages, and programming JavaScript techniques	2 6
3.	MongoDB Internet tools and technologies Lab: how to use MongoDB	2 4
4.	Angular Internet tools and technologies Lab: how to use Angular	2 4
5.	Node.js Internet tools and technologies Lab: how to use Node.js	2 4
6.	Fundamentals of PHP language Lab: programming PHP	2 6
7.	Web design using PHP and MySQL Lab: programs on web design in PHP and MYSQL	4 6
8	Firebase database Lab: Working on Firebase	2 4
9	Mongodb database Lab: Working on Firebase	4 4
<b>Total</b>		<b>60</b>

## D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	First Monthly Exam	8	20%
2.	Homework's	From 2 to 12	10%
3.	Practical exam	15	20%
4.	Final exam	17	50%

\*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	H. M. Deitel, P. J. Deitel, Internet & World Wide Web How to Program, Prentice Hall, Latest Edition
Supportive References	
Electronic Materials	Black Board
Other Learning Materials	<a href="https://www.w3schools.com/css/css_intro.asp">https://www.w3schools.com/css/css_intro.asp</a> <a href="http://lms.nu.edu.sa/webapps/portal/frameset.jsp">http://lms.nu.edu.sa/webapps/portal/frameset.jsp</a> <a href="http://lib.nu.edu.sa/DigitalLibrary.aspx">http://lib.nu.edu.sa/DigitalLibrary.aspx</a>

### 2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Lecture rooms should be large enough to accommodate the number of registered students
Technology equipment (projector, smart board, software)	Black Board/Data Show
Other equipment (depending on the nature of the specialty)	A separate Web Technology lab is required for lab exercise

## F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Staff committee	Cross checking
Effectiveness of students assessment	Student	Questioners
Quality of learning resources	Teachers and course description committees	Indirect: Benchmarking Self-evaluation External evaluation
The extent to which CLOs have been achieved	Teacher	Direct: Measuring the learning outcomes
Other		

**Assessor** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

**Assessment Methods** (Direct, Indirect)

## G. Specification Approval Data

COUNCIL /COMMITTEE		
REFERENCE NO.		
DATE		

