



## Course Specifications

|                      |  |
|----------------------|--|
| <b>Course Title:</b> | <b>Internet Technologies</b>                   |
| <b>Course Code:</b>  | <b>515CCS-3</b>                                |
| <b>Program:</b>      | <b>BSc in Computer Science</b>                 |
| <b>Department:</b>   | <b>Computer Science</b>                        |
| <b>College:</b>      | <b>Computer Science and Information System</b> |
| <b>Institution:</b>  | <b>Najran University</b>                       |

## Table of Contents

|   |          |
|---|----------|
| <b>A. Course Identification</b> .....   | <b>3</b> |
| 6. Mode of Instruction (mark all that apply) .....  | 3        |
| <b>B. Course Objectives and Learning Outcomes</b> .....   | <b>3</b> |
| 1. Course Description .....   | 3        |
| 2. Course Main Objective.....   | 3        |
| 3. Course Learning Outcomes .....   | 3        |
| <b>C. Course Content</b> .....  | <b>4</b> |
| <b>D. Teaching and Assessment</b> .....   | <b>4</b> |
| 1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment<br>Methods ..... | 4        |
| 2. Assessment Tasks for Students .....  | 5        |
| <b>E. Student Academic Counseling and Support</b> .....   | <b>5</b> |
| <b>F. Learning Resources and Facilities</b> .....   | <b>6</b> |
| 1. Learning Resources .....   | 6        |
| 2. Facilities Required.....   | 6        |
| <b>G. Course Quality Evaluation</b> .....   | <b>6</b> |
| <b>H. Specification Approval Data</b> .....   | <b>7</b> |

## A. Course Identification

|   |   |
|---|---|
| <b>1. Credit hours:</b>                               | <b>5</b>  |
| <b>2. Course type</b>                                 |   |
| a.  | University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/> |
| b.  | Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>  |
| <b>3. Level/year at which this course is offered:</b> | <b>Level 9 / Year 5</b>   |
| <b>4. Pre-requisites for this course (if any):</b>    | <b>N/A</b>  |
| <b>5. Co-requisites for this course (if any):</b>     | <b>N/A</b>  |

### 6. Mode of Instruction (mark all that apply)

| No | Mode of Instruction   | Contact Hours | Percentage |
|----|-----------------------|---------------|------------|
| 1  | Traditional classroom | 50            | 100%       |
| 2  | Blended               |               |            |
| 3  | E-learning            |               |            |
| 4  | Distance learning     |               |            |
| 5  | Other                 |               |            |

### 7. Contact Hours (based on academic semester)

| No | Activity          | Contact Hours |
|----|-------------------|---------------|
| 1  | Lecture           | 20            |
| 2  | Laboratory/Studio | 20            |
| 3  | Tutorial          | 10            |
| 4  | Others (specify)  | 0             |
|    | <b>Total</b>      | <b>50</b>     |

## B. Course Objectives and Learning Outcomes

### 1. Course Description

Study the history and fundamentals of the internet, Common web applications, types of web pages, web publishing and to learn about Internet protocols (HTTP, TCP/IP and FTP), Client/Server Architecture and the MVC approach in Website design. Programming with HTML, XHTML, cascading style sheets (CSS), and JavaScript, client and server side scripting, develop dynamic web application with PHP or ASP and MySQL. Finally, evaluating web sites and applications and learning about web privacy and various security issues

### 2. Course Main Objective

Use a variety of strategies and tools to create websites. Create standards-based websites that are accessible and usable by a full spectrum of users. Gain skills and training for an entry-level position in the field of Web Design. Learn to develop and maintain Web sites for a corporation or our own small business.

### 3. Course Learning Outcomes

|   | CLOs                        | Aligned PLOs |
|---|-----------------------------|--------------|
| 1 | Knowledge and Understanding |              |

| CLOs     |  | Aligned PLOs |
|----------|--|--------------|
| 1.1      | Understand fundamentals of internet, common web applications, their types, web security and privacy issues and social and commercial issues of web apps.                             | K1, K2       |
| 1.2      | Recognize browsing tools, web development tools and web publishing.  | K1, K3       |
| 1.3      |  | K1           |
| 1...     |  |              |
| <b>2</b> | <b>Skills :</b>  |              |
| 2.1      | Explain Internet protocols (HTTP, TCP/IP and FTP) and File/server, database server and 3-tier Client/Server Architecture.  | S2, S5       |
| 2.2      | Design a web page using MVC and other design approaches.   | S2, S4       |
| 2.3      | Develop dynamic web application with PHP or ASP and MySQL and programming with HTML, XHTML, cascading style sheets (CSS), and JavaScript, client and server-side Scripting language. | S1, S3       |
| 2.4      | Evaluate a web site related reliability, availability, and security  |              |
| 2...     |  |              |
| <b>3</b> | <b>Values:</b>   |              |
| 3.1      |  |              |
| 3.2      |  |              |
| 3.3      |  |              |
| 3...     |  |              |

## C. Course Content

| No           | List of Topics  | Contact Hours |
|--------------|---|---------------|
| 1            | The Overview and fundamentals of the internet technologies, web applications and web related issues | 4             |
| 2            | Web publishing  | 5             |
| 3            | Internet protocols (HTTP, TCP/IP and FTP)   | 3             |
| 4            | Client/Server Architecture  | 5             |
| 5            | File server and Data base server Architecture   | 5             |
| 6            | MVC Design approach and 3-tier Architecture   | 5             |
| 7            | Web design with CSS, HTML, XHTML and java script basics   | 9             |
| 8            | Web programming with PHP or ASP   | 9             |
| 9            | Linking web to DB with MySQL  | 3             |
| 10           | Web evaluation, security and privacy issues   | 2             |
| ...          |   |               |
| <b>Total</b> |   | <b>50</b>     |

## D. Teaching and Assessment

### 1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

| Code       | Course Learning Outcomes   | Teaching Strategies                     | Assessment Methods   |
|------------|--|---|--|
| <b>1.0</b> | <b>Knowledge and Understanding</b>   |   |  |
| 1.1        | Understand fundamentals of internet, common web applications, their types, web security and privacy issues and | Interactive Lectures, Group Discussions | Participation, Presentation, Midterm Exams, Quiz, Final Exam |

| Code       | Course Learning Outcomes   | Teaching Strategies                                 | Assessment Methods  |
|------------|--|---|---|
|            | social and commercial issues of web apps.  |   |   |
| 1.2        | Recognize browsing tools, web development tools and web publishing.  | Interactive Lectures, Group Discussions             | Participation, Presentation, Midterm Exams, Final Exam                        |
| ...        |  |   |   |
| <b>2.0</b> | <b>Skills</b>  |   |   |
| 2.1        | Explain Internet protocols (HTTP, TCP/IP and FTP) and File/server, database server and 3-tier Client/Server Architecture.  | Interactive Lectures, Group Discussions             | Participation Assignments, Presentation, Midterm Exams, Final Exam            |
| 2.2        | Design a web page using MVC and other design approaches.   | Interactive Lectures, Group Discussions             | Participation, Presentation, Assignments, Midterm Exams, Final Exam,          |
| 2.3        | Develop dynamic web application with PHP or ASP and MySQL and programming with HTML, XHTML, cascading style sheets (CSS), and JavaScript, client and server side Scripting language. | Lab Demonstrations, Mini Project, Group Discussions | Participation, Presentation, Assignments, Midterm Exams, Lab Exam, Final Exam |
| 2.4        | Evaluate a web site.   | Interactive Lectures, Group Discussions             | Participation, Presentation, Assignments, Midterm Exams, Final Exam           |
| <b>3.0</b> | <b>Values</b>  |   |   |
| 3.1        |  |   |   |
| 3.2        |  |   |   |
| ...        |  |   |   |

## 2. Assessment Tasks for Students

| # | Assessment task*                           | Week Due   | Percentage of Total Assessment Score |
|---|--|--|--------------------------------------|
| 1 | Participation                              | Every week   | 5%                                   |
| 2 | Quiz                                       | 3 <sup>rd</sup> week                                   | 5%                                   |
| 3 | Assignments or mini project (presentation) | 2 <sup>nd</sup> ,4 <sup>th</sup> ,7 <sup>th</sup> week | 20%                                  |
| 4 | Midterm Exam                               | 6  | 20%                                  |
| 5 | Lab Exam                                   | 11   | 10%                                  |
| 6 | Final Exam                                 | 12 or 13   | 40%                                  |
| 7 |  |  |                                      |

\*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

## E. Student Academic Counseling and Support

**Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:**

- Weekly office hours
- Pre-booked Appointments

- Additional office hours prior exams
- Weekly academic advising hours

## F. Learning Resources and Facilities

### 1. Learning Resources

|                                       |  |
|---------------------------------------|--|
| <b>Required Textbooks</b>             | <ul style="list-style-type: none"> <li>• Douglas E. Comer, Computer Networks and Internets with Internet Applications, Publisher: Prentice Hall, 5th Edition.</li> </ul>   |
| <b>Essential References Materials</b> | <ul style="list-style-type: none"> <li>• Deitel &amp; Deitel, Internet &amp; World Wide Web: How to Program, Prentice Hall, 5th Edition.</li> <li>• Robert W. Sebesta, Programming the World Wide Web, Addison-Wesley, Latest Edition.</li> <li>• Hugh E. Williams and David Lane, Web Database Applications with PHP, and MySQL, O'Reilly &amp; Associates.</li> <li>• David Powers, PHP Solutions: Dynamic Web Design Made Easy</li> </ul> |
| <b>Electronic Materials</b>           | <a href="http://www.w3schools.com/">http://www.w3schools.com/</a>  |
| <b>Other Learning Materials</b>       |  |

### 2. Facilities Required

| Item   | Resources      |
|--|----------------|
| <b>Accommodation</b><br>(Classrooms, laboratories, demonstration rooms/labs, etc.)   | E-learning     |
| <b>Technology Resources</b><br>(AV, data show, Smart Board, software, etc.)  | Data Show, PCs |
| <b>Other Resources</b><br>(Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list) |                |

## G. Course Quality Evaluation

| Evaluation Areas/Issues                     | Evaluators | Evaluation Methods |
|---|------------|--------------------|
| Online course survey                        | Students   | Indirect           |
| Course learning outcomes achievement survey | Students   | Indirect           |
| Achievement of course learning outcomes     | instructor | Direct             |
|   |            |                    |
|   |            |                    |
|   |            |                    |

**Evaluation areas** (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

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

**Assessment Methods** (Direct, Indirect)

## H. Specification Approval Data

|                            |                                       |
|----------------------------|---------------------------------------|
| <b>Council / Committee</b> | Computer Science Departmental Council |
| <b>Reference No.</b>       | 14440203-0185-00002                   |
| <b>Date</b>                | 1st Sep, 2022                         |