

Course Specifications

| | |
|----------------------|---|
| Course Title: | Internet Application and Web Development |
| Course Code: | 314CIS-4 |
| Program: | Information Systems |
| Department: | Information Systems |
| College: | College of Computer Science and Information Systems |
| Institution: | Najran University |



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A. Course Identification

| | |
|---|---|
| 1. Credit hours: | 4(3,2,1) |
| 2. Course type | 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"/> |
| 3. Level/year at which this course is offered: | Level 6/Year 3 |
| 4. Pre-requisites for this course (if any): | N/A |
| 5. Co-requisites for this course (if any): | N/A |

6. Mode of Instruction (mark all that apply)

| No | Mode of Instruction | Contact Hours | Percentage |
|----|-----------------------|---------------|------------|
| 1 | Traditional classroom | 90 | % 100 |
| 2 | Blended | | |
| 3 | E-learning | | |
| 4 | Correspondence | | |
| 5 | Other | | |

7. Actual Learning Hours (based on academic semester)

| No | Activity | Learning Hours |
|------------------------------|---------------------------------|----------------|
| Contact Hours | | |
| 1 | Lecture | 45 |
| 2 | Laboratory/Studio | 30 |
| 3 | Tutorial | 15 |
| 4 | Others (specify) | |
| | Total | 90 |
| Other Learning Hours* | | |
| 1 | Study | 25 |
| 2 | Assignments | 20 |
| 3 | Library | |
| 4 | Projects/Research Essays/Theses | 15 |
| 5 | Others (specify) | |
| | Total | 60 |

* The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times



B. Course Objectives and Learning Outcomes

1. Course Description

Students will learn basic principles and techniques for building internet applications .This course address the history and fundamentals of the internet, Topics include Programming with HTML, XHTML, cascading style sheets (CSS), and JavaScript, Event handling, client-side and server side technologies, Service oriented Architectures, Server side database management, Web Servers and how they combine together in development of dynamic web application from a selected programming language and environment(either with PHP or .NET and MySQL)

2. Course Main Objective:

The students should be able to understand the concepts of internet technologies and develop real-time applications.

3. Course Learning Outcomes

| CLOs | | Aligned PLOs |
|------|--|--------------|
| 1 | Knowledge: | |
| 1.1 | Identify the basic of technologies in the development of internet application in the modern world. | K1 |
| 1.2 | Evaluate the several web technologies and application architectures | K2,K3 |
| 2 | Skills : | |
| 2.1 | Recognize the basic Syntax and Semantics of Client side and Server side technologies with Programming Language. (Such as HTML, CSS, JavaScript and PHP/ASP.NET). | S1,S2 |
| 2.2 | Apply the modern web development tools to design the interactive web applications. | S1,S2,S4 |
| 2.3 | Develop the real-time Internet Applications using the latest application architectures | S1,S2,S4 |
| 3 | Competence: | |
| 3.1 | Execute the assigned group tasks | C1 |

C. Course Content

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



| | | |
|--------------|--|-----------|
| 10 | E-business application installation and deployment issues. | 4 |
| 11 | Programming using Visual studio ASP.NET | 28 |
| Total | | 90 |

D. Teaching and Assessment

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

| Code | Course Learning Outcomes | Teaching Strategies | Assessment Methods |
|------------|--|---|--------------------|
| 1.0 | Knowledge | | |
| 1.1 | Identify the basic of technologies in the development of internet application in the modern world. | Put forward some technologies to the students about the developments in internet application development | Theory Exam |
| 1.2 | Evaluate the several web technologies and application architectures | The different technologies used for the web development and a comparison of these. The different architectural | Theory Exam |
| 2.0 | Skills | | |
| 2.1 | Recognize the basic Syntax and Semantics of Client side and Server side technologies with Programming Language. (Such as HTML, CSS, JavaScript and PHP). | The basic technologies used for internet application such as html, css and javascript, php. The student need to understand the syntax and semantics of this technologies. | Lab Exam |
| 2.2 | Apply the modern web development tools to design the interactive web applications | The syntax and the advanced concepts which are learnt are implemented in the development of the interactive web applications in this CLO | Lab Exam |
| 2.3 | Develop the real Internet Applications using the latest application architectures | Make students perform the deployment of the web pages that they develop over the free server and create application sampling from the real life | Lab Exam |



| Code | Course Learning Outcomes | Teaching Strategies | Assessment Methods |
|------|----------------------------------|---|--------------------|
| 3.0 | Competence | | |
| 3.1 | Execute the assigned group tasks | The students are assigned group tasks to develop real internet applications | Assignments |

2. Assessment Tasks for Students

| # | Assessment task* | Week Due | Percentage of Total Assessment Score |
|----|---------------------|--------------------------|--------------------------------------|
| 1 | Theory Assignment 1 | 5 | 3 |
| 2 | Lab Assignment 1 | 4 | 3 |
| 3 | Mid Lab Exam | 5 | 6 |
| 4 | Mid Term 1 | 6 | 15 |
| 5 | Lab Assignment 2 | 13 | 3 |
| 6 | Theory Assignment 2 | 11 | 3 |
| 7 | Mid Term 2 | 12 | 15 |
| 8 | Lab Performance | Through out the semester | 2 |
| 9 | Final Lab Exam | 15 | 10 |
| 10 | Final theory Exam | 16 | 40 |

*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 :

The faculty allocated **10** office hours per week for the students individual consultation
4 weekly academic advising hours

F. Learning Resources and Facilities

1. Learning Resources

| | |
|--------------------------------|--|
| Required Textbooks | X. Bai, M. Ekedahl, J. Farrell, et al, The web warrior guide to Web Programming, Thomson, Course Technology, Latest Edition. |
| Essential References Materials | H. M. Deitel, P. J. Deitel, Internet & World Wide Web How to Program, Prentice Hall, Latest Edition |
| Electronic Materials | Tutorials on ASP.NET programming |
| Other Learning Materials | |



2. Facilities Required

| Item | Resources |
|--|---|
| Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) | 20 |
| Technology Resources (AV, data show, Smart Board, software, etc.) | AV, data show, Smart Board: 1 each Visual Studio in the Labs |
| Other Resources (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 |
|--|------------|--------------------------------|
| Effectiveness of teaching and assessment | Students | Indirect survey |
| Extent of achievement of course learning outcome | Faculty | Direct using achievement sheet |
| Quality of learning resources | Students | Indirect survey |
| Effectiveness of teaching and assessment | Students | Indirect survey |
| | | |

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

| | |
|----------------------------|-------------------------------|
| Council / Committee | Department Council |
| Reference No. | Session No. 10 (441-38-43300) |
| Date | 17/02/2020 |

