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**Department of Computer Science & IT**

**College of Science**

**University of Salahaddin**

**Subject: Web Programming**

**Course Book – (Year 3)**

**Lecturer's name: (MSc) Shakhawan H Mahmood**

**Academic Year: *2021*/*2022***

**Course Book**

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| **1. Course name** | **Web Programming I** | |
| **2. Lecturer in charge** | **Shakhawan H Mahmood** | |
| **3. Department/ College** | **Computer Science & IT/ College of Science** | |
| **4. Contact** | **e-mail: shakhawan.mahmood@su.edu.krd**  **Tel: +964750118 0130** | |
| **5. Time (in hours) per week** | **Theory: 2**  **Practical: 2** | |
| **6. Office hours** | **Sunday: 8:30 -10:30 AM & 12:30-13:30 PM** | |
| **7. Course code** |  | |
| **8. Teacher's academic profile** | **Teaching:**   * Attended each of Computer Graphics, Computer Networks and Data Structure modules labs as a teaching assistant in Salahaddin University, College of Education-Computer Science Dept, 2009-2010. * Attended each of OOP and Information Security modules labs as a teaching assistant in Salahaddin University, College of Education-Computer Science Dept, 2010-2011. * Attended two modules (“Semantic Web” and “Databases and Web Applications”) labs for MSc courses as a teaching assistant at the University of Leicester, Computer Science Dept., UK. Spring Semester 2013. * Attended two modules (“C++ Programming and Advanced Algorithm Design” and “Web Technologies”) labs for MSc courses as a teaching assistant at the University of Leicester, Computer Science Dept., UK. Fall Semester 2013. * 2014-Present, I have taught the following modules in Salahaddin University, College of Science-Computer Science Dept:  1. Service-Oriented Architecture 2. Computer Science I (C++ programming) 3. System Analysis & Design 4. Management Information System 5. Advanced Web Programming (Lab) 6. Programming Fundamentals   **Research Interest**:  My research interest is in the following topics:   * E-Learning * Educational Technology * Semantic Web * Search Engine Optimization (SEO)   **Supervision**:  I have supervised several final year projects such as:   1. Development of Online Helpdesk Mobile Application 2. Development of Learning Management System 3. Legal Services Website & Applying SEO Techniques on it. 4. Online Legal Services Management System. 5. Drugs Inventory System 6. Restaurant Management System 7. Conference Management System   **Past projects**:   * BSc project: Development of a database using Visual FoxPro. * MSc project: Development of a conference management system using JSP, Servlet and MySQL. | |
| **9. Keywords** | **HTML,HTML5, Css, Css3, Java Script, jQuery, Web Design, Web Programming** | |
| **10. Course overview:**  Web design and development skills are much in demand. This course aims to provide beginners with the fundamental conceptual and practical skills needed to master the creation of basic websites.  The Web Design & Development I curriculum is an introduction to the design, development, and maintenance of websites. Students learn how to critically evaluate website quality, learn how to create and maintain quality web pages, learn about web design standards and why they're important, and learn to create and manipulate images. The course progresses from introductory work on web design to a culminating project in which students design and develop websites for local community organizations.  Web design and development is an area of study encompassing everything involved in building a website, from the coding at work behind the scenes, to the design of the user-interface, to content management. Many companies hire designers and developers separately; however, designers and developers often work closely, and it hooves each to have a working knowledge of the other's area of study. A degree in this field will teach many skills transferable to a wide range of other careers. From learning about web graphics to the basics of animation to communication and marketing, the classes you take towards a degree in web design and development will give you the tools and knowledge necessary to excel in many different career paths. | | |
| **11. Course objective:**  Students will gain the skills and project-based experience needed for entry into web design and development careers.  Students will be able to use a variety of strategies and tools to create websites.  Students will develop awareness and appreciation of the myriad ways that people access the web and will be able to create standards-based websites that are accessible and usable by a full spectrum of users. | | |
| **12. Student's obligation**   1. Attendance is an essential requirement for all students 2. No student allowed 10 minutes after the lecturer for early morning sessions. 3. No student allowed after lecturer for late morning or afternoon sessions. 4. Submit assignments in a timely manner as expected. 5. Respect examinations rules. 6. Participating in competitions in lab. 7. Show respect, civil language, appropriate dress, and proper decorum at all times, both in and out of the classroom. 8. Contacting lecturer is only through email ( NO PHONE CALLS) 9. Respect yourself and you will be respected, any undesired act will not be forgiven and will be raised to punishment committee 10. Don’t be surprised by quizzes before or after lectures. 11. NO Chewing gum, using mobile, eating or refreshments inside lecture hall. 12. You are expected to have your lecture notes with you so that you take extra notes on them. You will be provided a soft copy through Moodle. | | |
| **13. Forms of teaching**  - Data Show (Projector)  -Whiteboard  -Laser pointer  -PowerPoint Slides  -Group Work  -Practical Sessions  -Assignments and projects  - Video lectures | | |
| **14. Assessment scheme**  Students are assessed as below:  Coursework:   * + Theory Exam: 15 Marks   + Practical (Lab Test + Assignments and Quizzes): 35 Marks   Final Theory Exam: 50 Marks ‌ | | |
| **15. Student learning outcome:**  • Identify most HTML tags and CSS properties and use a text editor to construct the basic HTML and CSS structure for a webpage;  • Use a FTP client to upload your webpages;  • Develop webpages that present information, graphics and hypertext links to other webpages in a cohesive manner, and build up with peers a website using CSS structure, while demonstrating awareness of usability and other web design issues;  • Be aware of a range of real-world web design approaches and critically  evaluate these approaches;  • Examine and evaluate the effectiveness of a web design in respect to its  context | | |
| **16. Course Reading List and References‌:**   * Deitel, H. M. and Deitel, P. J. 2008, Internet and World Wide Web How to Program, 4th Ed1424 pp, Paperback; Publisher: Prentice Hall; 4th Ed. (Septembar 5, 2007); ISBN-10: 0-131-75242-1; ISBN-13: 978-0131752429. * Refsnes, H. et.al. 2010, *Learn HTML and CSS*, Wiley Publishing, Inc., Indianapolis, Indiana * Meyer, E., *Cascading Style Sheets (CSS):* The Definitive Guide, 3rd Ed., O’Reilly, 2006. * Smith, B. E. 2009. *Creating Web Pages For Dummies*, 9th ed. Wiley Publishing, Inc., Indianapolis: Indiana. * Zakas, N. C.2009*. Professional JavaScript® for Web Developers*, 2nd Edition. Wiley Publishing, Inc., Indianapolis: Indiana * [www.w3schools.com](http://www.w3schools.com) * [www.tutorialspoint.com](http://www.tutorialspoint.com) | | |
| **17. The Topics:** | | **18. Practical Topics** |
| **Week1:** Introduction to web design and programming, history  What is web site, web page, website and web page structures.  HTML Editors  HTML elements, Web Server, Web Browser. | | Introduction to HTML  <HTML>, <head>,<title>, <p>,  <h1> to <h6>  <hr>, <br> HTML Format <b>,<i>,<strong>,<em>,<mark>,<sub>,<sup> |
| **Week2:** Internet, What is WWW, HTML Image, Background.  Image Map. | | HTML Internal & External Linkes  <a href=URL>  HTML Images <img src=URL>  Image Map<map>, <area>, |
| **Week3:** HTML Colors, URL, DNS.  Proxy Servers, Classifying Web Sites  **HTML Lists**: Ordered lists(bulleted lists), Unordered lists(numbered lists), Definition lists (describe terms and definitions), List Within List (Nested List) | | HTML Colors,HTML Comments  <q>,<pre> ,<bdo>,<acronym>,  <span>  HTML Lists  <ol>, <ul>, <dl>, <li>, <dt>, <dd> |
| **Week4:** **Tables**: Creating HTML Tables, Table Borders, Headings in table, Table with a Caption, Cells Spanning Multiple Columns, Tags Inside a Table, Cell Padding, Cell Spacing, Table Background Colors and Images, Cell Background Colors and Images, Styling table columns with Colgroup. | | HTML Table  <table>, <caption>, <tr>, <td> |
| **Week5:** Computer Communication Protocol: Network Protocols (TCP/IP), Transmission Control Protocols (TCP), Internet Protocol(IP), HTML DIV, HTML Frame.  TCP/IP Protocols: SSL HTTP HTTPS Email Protocols: SMTP (Simple Mail Transfer Protocol) MIME- Multi-purpose Internet Mail Extensions POP (Post Office Protocol).  IMAP (Internet message Access Protocol) | | HTML Table  <colgroup>, <col>, colspan, rowspan  more practice on table  HTML Division <div> |
| **Week6:** HTML Frames Frameset Tag, Horizontal Frameset, Vertical Frameset, Designing with Frameset, Mixed Frameset, no resize Attribute. | | HTML Style: font-family, font-size,  color,....,etc.  <frameset>, <frame>,<iframe> |
| **Week7:** **HTML Form**: HTML Form Input Elements, Input Tags and Attributes, Text Fields, Check Boxes, Radio Buttons, Text Area, Drop Down List, Buttons, Field set, Send Email from a Form. | | HTML Forms  <form>, <Input>, |
| **Week8:** HTML Form Attributes: Form Action, Form Method, Form Id, Form Name, Form NO Validate. | | <input> Type attributes |
| **Week 9-13: CSS**  What is CSS? CSS Syntax, CSS Selectors, CSS Text, Font, Background, colors, List, padding, margins, float, icons, links, tables, … etc.  CSS advanced (CSS transforms, transitions & animation) | | CSS  Internal Style Sheet,<style>  External Style Sheet,<link> |
| **Week14:** Revision | | Revision |
| **Week15**: Course Exam | |  |
| **19. Examinations:**  ***1.* Define Website and Webpage, support your answer with suitable figures:**  ***2.*****Specify True from False statements and correct only the wrong underlined terms:**   1. The **descendent selector**,using this selector will apply the style to only those elements that are direct children of another. 2. **document.print** it simply outputs the supplied string to the current document, where it is displayed. 3. **Server-side scripting** languages runs inside the browser. 4. With **external style sheet** you can change the look of an entire Web site by changing one file. 5. **“Frame”** This attribute specifies whether a three-dimensional border should be displayed between frames or not.   ***3.* Q1/ Fill in the blanks with correct choice:**   1. A \_\_\_\_ is a method by which a person or company rents a server to store data used to display a website. 2. URL b. web hosting c. domain name 3. Web information is stored in documents called\_\_\_\_\_\_\_\_\_\_. 4. web pages b. web browsers c. web servers 5. \_\_\_\_\_\_\_ is used for encryption of data for secure data transmission. 6. HTTPS b. SSL c. SMTP 7. \_\_\_\_\_\_\_\_\_\_\_\_ checks packets for errors and submits requests for re-transmissions if errors are found. 8. TCP/IP b. TCP c. IP 9. \_\_\_\_\_ tag is used to tell the browsers what to display in a drop-down list content.   a. <option> b. <value> c. <select> | |  |
| **21. Peer review پێداچوونه‌وه‌ی هاوه‌ڵ** | |  |