**COLLEGE OF INFORMATION TECHNOLOGY**

**DEPARTMENT OF MULTIMEDIA SCIENCE**

**COURSE SYLLABUS/ SPECIFICATION**

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|---|---|
| **Course Code & Title:** | **ITMS 205 - Internet Applications and Services** |
| **Weight:** | **(2 - 2 - 3)** |
| **Prerequisite:** | **ITCS 101** |
| **NQF Level Allocated:** | **Level 7** |
| **NQF Notional Hours / Credits:** | **120 notional hours/ 12 NQF credit** |

**Description:** This course focuses on designing and implementing websites using HTML5 and CSS3. Students get hands-on practice working with fundamentals through superior techniques to get the most out of their experience by teaching them the basics coding for web design, HTML5 and CSS3. In addition, students learn the new features of HTML5 and CSS3 styles.

**Objectives:**

1. To critically understand the basic concepts and terminology of static web sites.
2. To acquire the foundation of design techniques for static web sites.
3. To gain the different techniques of designing and development for entire static web sites using HTML 5 and CSS 3.

**Semester:** **Academic Year:**

**Instructor:**

**Office Tel:**

**Email:**

**Intended Learning Outcomes (ILOs):**

| A. Knowledge and Understanding | | NQF Descriptor/ Level |
|---|---|---|
| **A1** | **Concepts and Theories:** Demonstrate knowledge and understanding of Web Design, how to plan, organize, and create a website from start to finish using HTML5 and CSS3. | Knowledge: theoretical understanding [Level 7] |
| **A2** | **Contemporary Trends, Problems and Research:** | N/A |
| **A3** | **Professional Responsibility:** | N/A |

| B. Subject-specific Skills | | NQF Descriptor/ Level |
|---|---|---|
| **B1** | **Problem Solving:** | N/A |
| **B2** | **Modeling and Design:** Design the architecture of static websites by choosing appropriate components and models that satisfy user specifications. | Knowledge: Practical Application [Level 7] |
| **B3** | **Application of Methods and Tools:** Employ appropriate methods, techniques, and tools used in modern Multimedia practical packages and web design methods to design websites. | Knowledge: Practical Application [Level 7] Skills: Communication, ICT & Numeracy[Level 7] |

| C. Critical-Thinking Skills | | NQF Descriptor/ Level |
|---|---|---|
| **C1** | **Analytic skills:** Analyze websites through source coding to explore the content of pages. | Generic Problem Solving & Analytical skills [Level 7] |
| **C2** | **Synthetic:** | N/A |
| **C3** | **Creative:** Use a range of a creative approach to develop insightful projects ideas in the term of design and layout during the lab sessions. | Knowledge: Practical Application/ Generic Problem Solving [Level 7] |

| D. General and Transferable Skills (other skills relevant to employability and personal development) | | NQF Descriptor/ Level |
|---|---|---|
| **D1** | **Communication:** Express and communicate ideas effectively through storyboards and oral form through presentations. | Communication, ICT and Numeracy Skills [Level 6] |
| **D2** | **Teamwork and Leadership:** | N/A |
| **D3** | **Organizational and Developmental Skills:** Demonstrate ability to organize ideas for developing websites and to manage resources efficiently. | Competence: Autonomy, Responsibility and Context [Level 6] |
| **D4** | **Ethics and Social Responsibility:** | N/A |

**Course Structure (Outline)**

| Week | Hours | | ILOs | Unit/Module or Topic Title | Teaching Method | Assessment Method |
|---|---|---|---|---|---|---|
| | Lecture | Lab | | | | |
| 1 | 2 | 2 | A1 | **Introduction:**<br>• Introduction to HTML5<br>• Editing HTML5<br>• First HTML5 Example | Lecture, Exercises, Lab Demonstration | - |
| 2 | 2 | 2 | A1, D1 | **Using HTML5:**<br>• Headings<br>• Linking<br>• Images, alt Attribute<br>• Void Elements | Lecture, Lab Demonstration | Oral Participation |
| 3 | 2 | 2 | B2, B3, C1, C3, D1, D3 | **Using HTML5:**<br>• Using Images as Hyperlinks<br>• Special Characters and Horizontal Rules<br>• Lists | Lecture, Exercises, Lab Demonstration | In-Lab Exercises |
| 4 | 2 | 2 | B2, B3, C1, C3, D1, D3 | **Using HTML5:**<br>• Tables | Lecture, Exercises, Lab Demonstration | In-Lab Exercises |
| 5 | 2 | 2 | B2, B3, C1, C3, D1, D3 | **Using HTML5:**<br>• Forms | Lecture, Exercises, Lab Demonstration | In-Lab Exercises |
| 6 | 2 | 2 | A1, B3 | **Using HTML5:**<br>• New HTML5 Form input:<br>input Type color<br>input Type date<br>input Type datetime<br>input Type datetime-local<br>input Type email<br>input Type month<br>input Type number<br>input Type range<br>input Type search<br>input Type tel<br>input Type time<br>input Type url<br>input Type week | Lecture, Exercises, Lab Demonstration | Quiz 1 |

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| 7 | 2 | 2 | B2, B3, C1, C3, D1, D3 | **Using HTML5:**<br>• input and datalist Elements and autocomplete Attribute<br>• input Element autocomplete Attribute<br>• datalist Element | Lecture, Exercises, Lab Demonstration | In-Lab Exercises |
| 8-9 | 4 | 4 | B2, B3, C1, C3, D3 | **Using HTML5:**<br>• Page-Structure Elements: header Element<br>nav Element<br>figure Element and figcaption Element<br>article Element<br>summary Element and details Element<br>section Element<br>aside Element<br>meter Element<br>footer Element<br>Text-Level Semantics: mark Element and wbr Element | Lecture, Exercises, Lab Demonstration | Lab Test |
| 10 | 2 | 2 | B2, B3, C1, C3, D3 | **Using CSS3:**<br>• Introduction to CSS<br>• Inline Styles<br>• Embedded Style Sheets | Lecture, Exercises, Lab Demonstration | In-Lab Project Part A |
| 11 | 2 | 2 | B2, B3, C1, C3, D1, D3 | **Using CSS3:**<br>• Linking External Style Sheets<br>• Positioning Elements: Absolute Positioning, z-index<br>• Backgrounds | Lecture, Exercises, Lab Demonstration | In-Lab Exercises |
| 12 | 2 | 2 | B2, B3, C1, C3, D1, D3 | **Using CSS3:**<br>• Box Model and Text Flow<br>• Media Types and Media Queries<br>• Drop-Down Menus | Lecture, Exercises, Lab Demonstration | In-Lab Project Part B |

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| 13 | 2 | 2 | A1, B3 | **Using CSS3:**<br>• Text Shadows<br>• Rounded Corners<br>• Color<br>• Box Shadows | Lecture, Exercises, Lab Demonstration | Quiz 2 |
| 14 | 2 | 2 | B2, B3, C1, C3, D1, D3 | **Using CSS3:**<br>• Linear Gradients; Introducing Vendor Prefixes<br>• Reflections<br>• Image Borders | Lecture, Exercises, Lab Demonstration | In-Lab Exercises |
| 15 | 2 | 2 | B2, B3, C1, C3, D1, D3 | **Using CSS3:**<br>• Animation; Selectors<br>• Transitions and Transformations<br>• Transition and transform Properties<br>• Skew<br>• Transitioning Between Images | Lecture, Exercises, Lab Demonstration | In-Lab Exercises |
| 16 | | | A1, B2, B3, C1, C3, D1, D3 | All Topics and Final Programming Project presentations to be given by students. | Discussion, Tutorial | In-Lab Project Part C<br><br>Final Exam |

**Teaching Materials:**

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| **Textbook(s):** | Ranjan Parekh, (2017), Principles of Multimedia 2nd Edition, McGraw Hill. |
| **Handout(s):** | Available on http://www.ahlia.edu.bh/moodle. |
| **Reference(s):** | 1. Tay Vaughan, (2017), Multimedia: Making It Work, Ninth Edition, McGraw Hill.<br>2. Prabhat K. Andleigh, Kiran Thakrar, (2015), Multimedia Systems Design, Pearson.<br>3. Ramesh Bangia, and Laxmi Publications, (2015), Introduction to Multimedia.<br>4. Z-N. Li, M.S. Drew, and J. Liu, (2014), Fundamentals of Multimedia, 2nd Edition, Springer. |

**Assessments:**

| Type of Assessment | Description | ILOs | Weighting |
|---|---|---|---|
| Oral Participation | Students will be questioned orally to demonstrate their understanding and knowledge of the topics covered during class lectures and lab sessions. | A1, D1 | Formative |
| In-Lab Exercises | Lab exercises cover problem solving questions and help students in mastering the topics. | B2, B3 | Formative |
| In-Lab Project | The lab project consists of a set of practical tasks to be implemented by students individually in lab as shown in the above weekly structure. The lab project assesses the students' skills in developing and designing websites. In addition, each student will present his website. | B2, B3, C1, C3, D1, D3 | 25% |
| Quizzes | The test will be an in-class 20 minutes quiz that will consists of short-answer and problem solving questions. Also, it covers the topics as shown in the above weekly structure. | A1, B3 | 10% |
| Lab Test | The test will be for two hours and used to assess students in the implementation of topics studied in the first 9 weeks. | B2, B3, C1, C3, D3 | 25% |
| Final Exam | The final exam is comprehensive and will be of two hours duration. | A1, B2, B3, C1, C3 | 40% |
| | | **Overall** | **100%** |

| **Admissions** | |
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| **Minimum number of students** | **5** |
| **Maximum number of students** | **20** |

**Ahlia University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see www.ahlia.edu.bh/integrity for more information).**