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Basic Information

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| Faculty | Mohammad Rifat Ahmmad Rashid, PhD  Assistant Professor, Department of CSE | | | | | | | | | |
| Office Hour | **Sun/Tues-**11.00am - 1:30pm  **Mon/Wed –** 11:30 am – 1:00 pm **Thurs**-10.00am - 4.00pm  Note: Also available by appointment (e.g. email) at other hours | | | | | | | | | |
| Contact Details | [rifat.ahmed@ulab.edu.bd](mailto:rifat.ahmed@ulab.edu.bd) | | | | | | | | | |
| Course Pre-requisites | CSE 201 (OOP-Java), CSE 207 (Data Structure) | | | | | | | | | |
| Department offering the course | Computer Science and Engineering | | | | | | | | | |
| Course Title | Web Technology | | | | | | | | | |
| Course Code | CSE-480(1) | | Credit | | 03 | | Term | Spring 2020 | | |
| Number of Lectures | 24 | Number of Tutorials | |  | | Number of Practical | | 0 | Total | 24 |

Course Details

**1. Course Description**

Hand on experience in developing interactive Web Sites and Web Applications using latest programming languages and tools. Discussion topics may include: JavaScript, jQuery, AJAX, Client-side validation, User Authentication, Asynchronous HTTP requests, Website Security.

**2. Course Objective**

1. To **provide** a thorough **understanding** Front-End designs with code efficiency.

2. To **introduce** to latest client-side programming languages and tools.

3. To **emphasis** on different languages and their benefits.

4. To **enable** students to **write** quality enterprise/commercial websites.

**3. Intended learning outcomes of the course (ILOs)**

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| 1. **Recognize, recall** and **understand** latest practices and performance implications of client-side languages 2. **Understand** and **outline** different processes for transmitting data 3. **Design** and **develop** real-life Web Application 4. **Use** available libraries, APIs and functions in Client-Side Language 5. **Possess** positive approach to adapting and learning new languages/features and **apply** them to **create** interactive Web Applications |

**4. Mapping of Course LO and PLO:**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Learning Outcome (LO) of the Course** | **Program Learning Outcome (PLO)** | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| **ILO1** | MJ |  | MJ |  | MJ |  |  |  |  |  | MJ |  |
| **ILO2** | MJ |  |  | MN |  |  |  |  |  |  | MN |  |
| **ILO3** | MJ | MJ | MJ | MJ | MJ |  |  |  |  |  | MJ |  |
| **ILO4** | MJ | MJ | MN | MJ | MJ |  |  |  |  |  | MJ |  |
| **ILO5** | MJ | MJ | MJ | MJ | MJ |  |  |  |  |  | MJ |  |

1. **Contents**

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| --- | --- | --- | --- | --- |
| **ILO** | **Topic** | **Teaching Strategy** | **Assessment Strategy of Los** | **Number of Sessions** |
| 1 | Introduction to Web Technologies | Lecture, Exercise | Q/A, Test | 2 |
| 1,3,5 | HTML5, CSS3 with it’s new components | Lecture, Exercise | Q/A, Test, Assignment | 6 |
| 1-5 | JavaScript, jQuery, AJAX | Lecture, Exercise | Q/A, Test, Assignment | 8 |
| 1-5 | Data transmission formats and processes, XML and JSON, , API design | Lecture, Exercise | Q/A, Test, Assignment | 6 |
| 2,5 | Cyber Security and Secured Protocols | Lecture, Exercise | Q/A, Test, Assignment | 2 |
|  |  |  | **Total** | 24 |

**7. A. Assessment Schedule**

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| --- | --- | --- | --- |
| Assessment 1 | Quiz 1, 2, 3 | Session | Week 3, 5, 8 |
| Assessment 2 | Assignment 1, 2, 3 | Session | Week 5, 7, 9 |
| Assessment 4 | Midterm | Session | As per ULAB schedule |
| Assessment 6 | Final Project | Session | Week 11 |
| Assessment 7 | Final | Session | As per ULAB schedule |

**B. Weights of Assessments**

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| --- | --- |
| Assessments | **%** |
| Mid-term Examination | 20 |
| Final Term Examination | 40 |
| Assignments | 10 |
| Quizzes | 10 |
| Project | 20 |
| Total | 100 |

**C. Grading Policy**

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| --- | --- | --- | --- |
| **Policy** | **Letter Grade** | **Grade Point** | **Assessments** |
| 95% and above | A+ | 4.00 | Outstanding |
| 85% to below 94% | A | 4.00 | Superlative |
| 80% to below 84% | A- | 3.80 | Excellent |
| 75% to below 79% | B+ | 3.30 | Very Good |
| 70% to below 74% | B | 3.00 | Good |
| 65% to below 69% | B- | 2.80 | Average |
| 60% to below 64% | C+ | 2.50 | Below Average |
| 55% to below 59% | C | 2.20 | Passing |
| 50% to below 54% | D | 1.50 | Probationary |
| below 50% | F | 0.00 | Fail |
| -- | I | 0.00 | Incomplete |
| -- | W | 0.00 | Withdrawn |
| -- | AW | 0.00 | Administrative Withdrawal |

**8. List of References**

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| Course Notes | Personal and Online Notes |
| Essential Books (Text Books) | JavaScript & jQuery ‘The Missing Manual’  -David Sawyer McFarland |
| Periodicals | NA |
| Online Resources | Will be provided during lecture |

**Facilities Required for Teaching and Learning**

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| Multimedia projector, white board and marker, and internet connection. |

**Course Policies and Procedures**

* + Failing to attend more than 5 classes will result in an automatic fail
  + Students are advised to keep the cell phones in to silent mode
* Cheating and plagiarism are strictly prohibited
* There will be no makeup quiz
* ULAB regulations will be followed in conducting exams and evaluating answer scripts and grading

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| **Appendix-1: Program Learning Outcome (PLO)**  **No. PLO**  1. **Engineering Knowledge**  2. **Problem Analysis**  3. **Design/Development of Solutions**  4. **Investigation**  5. **Modern Tool Usage**  6. **The Engineer and Society**  7. **Environment and Sustainability**  8. **Ethics**  9. **Communication**  10. **Individual and Team Work**  11. **Life Long Learning**  12. **Project Management and Finance**    **Generic Skills (Detailed):**   1. **Engineering Knowledge (T)** -Apply knowledge of mathematics, sciences, engineering fundamentals and manufacturing engineering to the solution of complex engineering problems; 2. **Problem Analysis (T)** – Identify, formulate, research relevant literature and analyze complex engineering problems, and reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences; 3. **Design/Development of Solutions (A)** –Design solutions, exhibiting innovativeness, for complex engineering problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, economical, ethical, environmental and sustainability issues. 4. **Investigation (D)** Conduct investigation into complex problems, displaying creativeness, using research-based knowledge, and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions; 5. **Modern Tool Usage (A & D)** -Create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex engineering activities, with an understanding of the limitations; 6. **The Engineer and Society (ESSE)** -Apply reasoning based on contextual knowledge to assess societal, health, safety, legal, cultural, contemporary issues, and the consequent responsibilities relevant to professional engineering practices. 7. **Environment and Sustainability (ESSE)** -Understand the impact of professional engineering solutions in societal, global, and environmental contexts and demonstrate knowledge of and need for sustainable development; 8. **Ethics (ESSE)** –Apply professional ethics with Islamic values and commit to responsibilities and norms of professional engineering code of practices. 9. **Communication (S)** -Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions; 10. **Individual and Team Work (S)** -Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings. 11. **Life Long Learning (S)** -Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. 12. **Project Management and Finance (S)** -Demonstrate knowledge and understanding of engineering management and financial principles and apply these to one’s own work, as a member and/or leader in a team, to manage projects in multidisciplinary settings, and identify opportunities of entrepreneurship. | | |
| .................................................................................................  *Course Coordinator/ Teacher*  Date: |  | .................................................................................................  *Head of the Department*  Date: |