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| **Faculty:** | Yasemin Fanaeian |
| **Email** | [yasemin.fanaeian@humber.ca](mailto:yasemin.fanaeian@humber.ca) |
| **Faculty Availability:** | By appointment |
| **Program Coordinator:** | Bernie Monette |

**COURSE OUTLINE ACADEMIC YEAR 2015/2016**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Title:** Mobile Development | | | |
| **Course Code:** HTTP 5204  (Formerly HTTP 508) | **Schedule Type Code:** LES | **Credit Value:** 3 | **Class Hours:** 3 |
| **Program:** Web Development | | **Pre-Requisite(s):** HTTP 5101, 5102, 5103, 5105 | **Co-requisite(s):** |
| **Pre-requisite for:** HTTP 5302, 5303, 5304, and 5305 | | | |
| **Restrictions:** N/A | | | |

**Program outcomes emphasized in this course:**

1. Develop data-driven websites for multiple platforms in accordance with best practices, industry standards in content management, security, database design, interface design, usability, accessibility and personalization.
2. Design and develop web services for a website using software programs.
3. Design a full featured functioning commercial website using software programs, including a defined information architecture that is supported by navigation, layout, text and graphics.
4. Test, troubleshoot and debug software created in the web projects.

**Approved By:**

Dean/Associate Dean:

Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Course Description**

This course covers the website development environment for mobile devices (through responsive/adaptive design and development) using the .NET Framework. Students will discuss the business case and programming rationales for mobile development.

Students will utilize ASP.NET and AJAX to create rich, interactive web pages. Students will use Microsoft SQL server as the primary data store and employ ASP.NET technology and practices to create secure, globalized, data base driven web pages.

**Course Rationale**

One of the most important shifts in Web development has been the development of mobile or responsive designs. This course continues the preparation and teaching of the trend as it relates to web site programming.

**Learning Outcomes**

Upon successful completion of this course, students will be able to:

• Plan a mobile application: using storyboards and wireframes.

• Choose a mobile platform (or responsive design) to show the application.

• Evaluate the usability of a mobile application and make changes as needed.

• Describe the rationale for creating a mobile (and/or MVC) application.

• Create mobile web application with ASP.NET C# (MVC).

• Construct and implement ASP.NET security.

• Manage the ASP.NET (MVC) application state.

• Build and employ LINQ technology.

• Manage and employ MS SQL and MS SQL technology as the primary data store.

• Create and deploy custom applications.

• Trouble shoot and debug code by using the IDE.

**Essential Employability Skills**

Essential Employability Skills are transferable skills that provide the foundation for a student’s academic, vocational, and personal success.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *X* | *Communication* | *X* | *Critical Thinking &*  *Problem Solving* | *X* | *Interpersonal* |
| *X* | *Numeracy* |  | *Information Management* | *X* | *Personal* |

**Learning Resources**

**Required Resources:**

Walther, S. (2010). *ASP.NET MVC Framework Unleashed*. Pearson Education, Inc.

Rolando, J. and Paz, G. (2013). *Beginning ASP.NET MVC 4.* Apress.

Galloway, J., Wilson, B., Allen, K.S. & Matson, D. (2014). *Professional ASP.NET MVC 5*. Wrox/Wiley.

**Supplemental Resources:**

As provided by the professor or see resources, if applicable.

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See the Humber Libraries website (http://library.humber.ca) for additional information regarding copyright and for details on allowable limits.

**Learning Delivery Format**

Blended, Lecture, Lab, Classroom, Independent Study, Group Work, Projects, Assignments and Exams

**Course Content**

|  |  |  |  |
| --- | --- | --- | --- |
| **UNIT** | **TOPIC(S)** | **ASSESSMENTS** | **RESOURCES** |
| ***WEEK 1***  **Introduction to the course**  **An Introduction to ASP.NET MVC** | Review course objectives, topics, assignments, policies  What is ASP.NET MVC?  The Architecture of an ASP.NET MVC Application |  | Course outline on  Blackboard  Assignments, handouts, and lectures are on Blackboard |
| **Building a Simple ASP.NET MVC Application** |  |  |  |
| ***WEEK 2***  **Understanding Controllers and Actions** | Creating a Controller |  | See handouts |
| ***WEEK 3***  **Understanding Views**  **Understanding HTML Helpers** | The Purpose of Views  Creating a View  Using View Data  The Razor View Engine  Layouts  HTML Helpers  Mobile Features |  | See handouts |
| ***WEEK 4***  **Understanding Models** | Developing Models and Working with Data  Data Access (LINQ) | Homework #1 | See handouts |
| ***WEEK 5***  **Validating Form Data** | Data Validation  Model State  Validation Helpers  Error Messages |  | See handouts |
| ***WEEK 6***  **AJAX and jQuery** | Integrating JavaScript  Integrating AJAX  Integrating JavaScript libraries (jQuery) | Quiz #1 | See handouts |
| ***WEEK 7***  **Midterm Exam**  **Security** | Authenticating and Authorizing Users  Creating Roles |  | See handouts |
| ***WEEK 8***  **Understanding Routing** | Uniform Resource Locators  Introduction to Routing  Inside Routing |  | See handouts |
| ***WEEK 9***  **Testing the Applications** | Debugging, Tracing |  | See handouts |
| ***WEEK 10***  **Deploying the Applications** | Deploying ASP.NET MVC Applications | Homework #2 | See handouts |
| ***WEEK 11***  **Mobile Development** | ASP.NET MVC Mobile Features  Responsive Web Design |  | See handouts |
| ***WEEK 12***  **Mobile Development** | JQuery Mobile |  | See handouts |
| ***WEEK 13***  **Work Period on Final Project** |  | Quiz #2 |  |
| ***WEEK 14***  **Final Exam** |  |  |  |
| ***WEEK 15***  **Final Project Presentations** |  |  |  |

**Please note: this course schedule may change as resources and circumstances require.**

**Please read Humber’s academic calendar at** [**http://www.humber.ca/admissions/academic-calendar**](http://www.humber.ca/admissions/academic-calendar) **for important dates.**

**Student Evaluations**

Quizzes 10

Homework 10

Projects 30

Presentation 10

Midterm Exam 20

Final Exam 20

Total = 100%

**School Specific Field:**

It is the student’s responsibility to retain course outlines for possible future use in support of applications for transfer credit to other educational institutions.

**Diploma/Postgraduate/Certificate Students:**

In addition to meeting all program specific course and credit requirements, students must have a

Cumulative Program Grade Point Average (CPGPA) of ≥ 60 in order to be eligible for graduation.

**Policies and Procedures**

It is the student’s responsibility to be aware of the College Academic Regulationswhich can be found on the following website: <http://www.humber.ca/academic-regulations>

The program handbook is available on Blackboard. If you cannot find it please contact the program coordinator. It is your responsibility to read, understand, and follow the program handbook.

**Late work**

This is a post-graduate level course and it is expected that all work should be handed in on time. If for any reason this is not possible, it is your responsibility to anticipate and discuss the matter with your professor. Medical cases which may interfere with deadlines usually require confirmation in writing from a health care professional. Late work is normally subject to a 5% (five per cent) per day penalty and a zero grade after 10 days. Late will work will be accepted solely by arrangement and at the discretion of the professor.

**Academic Integrity**

Academic integrity is essentially honesty in all academic endeavors. Academic integrity requires that students avoid all forms of academic misconduct or dishonesty, including plagiarism, cheating on tests or exams or any misrepresentation of academic accomplishment.

**Research Activity**

*N/A*

**Academic Concern/Appeals**

If a student has questions or concerns regarding a grade on an assignment or test, the student should discuss the matter with the faculty member. The Program Co-ordinator and/or the Associate Dean may be asked to assist if the faculty member and student are unable to resolve issues. For additional information please refer to Section 13 of College’s Academic Complaint and Appeal Policy at the web site identified above.

**Prior Learning Assessment Recognition (PLAR)**

Course credits may be granted in recognition of prior learning, and that Application for

Consideration is made through the Office of the Registrar at <http://www.humber.ca/plar/docs/pla.pdf>.

Each course outline must indicate method(s) of assessment.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Challenge Exam*** | ***Portfolio*** | ***Skills Test*** | ***Interview*** | ***Other (Specify)*** | ***Not Available For PLAR*** |
|  |  |  |  |  | *x* |

**Accessible Learning Services**

Humber seeks to create a welcoming environment where equity, diversity and safety of all groups are fundamental. Humber is dedicated to providing equal access to students with disabilities. The Disability Services staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations. If you require academic accommodations, contact:

Disability Services: http://www.humber.ca/disabilityservices/

North Campus: (416) 675-6622 X5180

Lakeshore Campus: (416) 675-6622 X3265

**Disclaimer**

While every effort is made by the professor/faculty to cover all material listed in the outline, the order, content, and/or evaluation may change in the event of special circumstances (e.g. time constraints due to inclement weather, sickness, college closure, technology/equipment problems or changes, etc.). In any such case, students will be given appropriate notification in writing, with approval from the Dean (or designate) of the School.

**Appendix**

| **Essential Employability Skills (MTCU Requirements)** | **Graduates of the program reliably demonstrate the ability to:** |
| --- | --- |
| Communication | |
| Reading | 1. communicate clearly, concisely and correctly in the written, spoken and visual form that fulfills the purpose and meets the needs of the audience  2. respond to written, spoken, or visual messages in a manner that ensures effective communication |
| Writing |
| Speaking |
| Listening |
| Presenting |
| Numeracy | |
| Understanding and Applying Mathematical Concepts and Reasoning | 3. execute mathematical operations accurately |
| Analysing and using Numerical Data |
| Conceptualizing |
| Critical Thinking & Problem Solving | |
| Analysing | 4. apply a systematic approach to solve problems  5. use a variety of thinking skills to anticipate and solve problems |
| Synthesising |
| Evaluating |
| Decision-Making |
| Creative and Innovative Thinking |
| Information Management | |
| Gathering and managing information | 6. locate, select, organize and document information using appropriate technology and information systems  7. analyse, evaluate and apply relevant information for a variety of sources |
| Selecting and using appropriate tools and technology for a task or project |
| Computer literacy |
| Internet skills |
| Interpersonal | |
| Teamwork | 8. show respect for the diverse opinions, values, belief systems n and contributions of others  9. interact with others in groups or teams in ways that contribute to the effect working relationships and the achievement of goals |
| Relationship management |
| Conflict resolution |
| Leadership |
| Networking |
| Personal | |
| Managing self | 10. manage the use of time and other resources to complete projects  11. take responsibility for one’s actions, decisions, and consequences |
| Managing change and being flexible and adaptable |
| Engaging in reflective practice |
| Demonstrating personal responsibility |

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