COURSE OUTLINE

Course Number    Course Title    Credits
IST 144          Website Development  4

<table>
<thead>
<tr>
<th>Lecture hours</th>
<th>Laboratory hours</th>
<th>Pre-requisite:</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>None</td>
<td>Spring 2019</td>
</tr>
</tbody>
</table>

Catalog description:
Introduces website development skills. Thorough examination of Hypertext Markup Language (HTML) includes navigations, tables, Cascading Style Sheets (CSS), images, audios, videos, and forms. Students learn the latest Web design and development technologies including HTML5, CSS3, JavaScript, and jQuery.

Is course New, Revised, or Modified? Revised

Required texts/other materials:
Reference Division Booklist

Revision date: Spring 2019   Course coordinator: Meimei Gao, X3483, gaom@mccc.edu

Information resources:
Textbooks
W3 School Website - http://www.w3schools.com

Other learning resources: LMS e.g. BLACKBOARD
Course Goals:

The student will be able to:

1. Describe website, HTML, CSS, JavaScript, jQuery and their relations. (GE Goal 4, MCCC CS Goals D and E)
2. Install, configure and use website development environment. (GE Goal 4, MCCC CS Goals D and E)
3. Design website UI by using HTML and CSS programming technology. (GE Goal 4, MCCC CS Goal B)
4. Develop software solutions using programming skills including user input, variables, control structures, and functions. (GE Goal 4, MCCC CS Goal B)
5. Build website by using HTML and JavaScript (GE Goal 4, MCCC CS Goal B)

Course-specific General Education Knowledge Goals and Core Skills.

General Education Knowledge Goals
Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

MCCC Core Skills
Goal B. Critical Thinking and Problem-solving. Students will use critical thinking and problem solving skills in analyzing information.
Goal D. Information Literacy. Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.
Goal E. Computer Literacy. Students will use computers to access, analyze or present information, solve problems, and communicate with others.

Units of study in detail.

Unit I Introduction to Website Development
Learning Objectives
The student will be able to…
• Describe website structure [CG1]
• Describe the components of website development [CG2]
• Use website development environment [CG2]
• Create and run a simple website in web browser [CG2]

Unit II Introduction to HTML
Learning Objectives
The student will be able to…
• Describe HTML [CG1]
• Use HTML edit environment [CG2]
• Use HTML elements, attributes, headings, paragraphs, links, images, tables, lists, forms, layout, colors, entities, symbols, XHTML, etc. [CG 3&5]
• Create and run various HTML websites in web browsers [CG 2, 3, 4&5]

Unit III HTML5 New Features
Learning Objectives
The student will be able to…
• Describe HTML5, HTML versions. [CG1]
• Describe new features of HTML5. [CG1]
• Use HTML5 new elements, Forms, Graphics, Media and APIs [CG 3&5]
• Create and run websites by using new HTML5 features. [CG 2, 3, 4&5]
Unit IV  Introduction to CSS

Learning Objectives

The student will be able to...

• Describe CSS [CG1]
• Describe CSS edit environment [CG2]
• Use CSS syntax, background, text, links, tables, outline, image, etc. [CG3]
• Create and run websites in web browser by using different CSS settings [CG 2, 3, 4 & 5]

Unit V  CSS3 New Features

Learning Objectives

The student will be able to...

• Describe CSS3, CSS versions. [CG1]
• Describe new features of CSS3. [CG1]
• Use CSS3 modules – selectors, box model, backgrounds and borders, gradients, text effects, 2D/3D transformations, animations, multiple columns, user interface [CG3]
• Create and run websites by using new CSS3 features. [CG 2, 3, 4 & 5]

Unit VI  Introduction to JavaScript

Learning Objectives

The student will be able to...

• Work with variables in JS. [CG4]
• Create statements and use control structures in JS. [CG4]
• Declare, create and call functions. [CG 4]
• Use event model. [CG 2]
• Use JSON format. [CG 2]
• Create objects, properties and prototypes. [CG4]
• Use HTML DOM in JS. [CG 2]
• Use Browser BOM in JS. [CG 2]

Unit VII  Introduction to jQuery

Learning Objectives

The student will be able to...

• Describe the jQuery. [CG 4]
• Install jQuery. [CG 4]
• Describe the jQuery syntax. [CG4]
• Create and use Selectors, Events. [CG 4]
• Use jQuery effects, jQuery HTML, jQuery Traversing, jQuery AJAX. [CG 4]

Evaluation of student learning:

Achievement of the course objectives can be evaluated through the use of the following tools:

- Labs and homework assessing students’ problem-solving ability and programming skills. (CG 2, 3, 4 & 5)
- Tests assessing students’ comprehension of programming environments and concepts. (CG 1, 3, 4, & 5)
- A term project to assess the students’ ability to solve relatively complex problems using formal programming language. (CG 2, 3, 4 & 5)

Specific methods for evaluating student progress through the course are up to the discretion of the instructor. Below is an example of grade breakdown:

<table>
<thead>
<tr>
<th>The final grade is based on the following values:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Tests</td>
<td>30%</td>
</tr>
<tr>
<td>Laboratory &amp; Project Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>A Term Project</td>
<td>15%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
</tr>
</tbody>
</table>
**Academic Integrity Statement:**

As per the student handbook, “A student will be guilty of violating academic integrity if he/she (a) knowingly represents the work of others as his/her own, (b) uses or obtains unauthorized assistance in the execution of academic work, or (c) gives fraudulent assistance to another student.” Students should read the Academic Integrity policy in the MCCC Rights and Responsibilities Student Handbook. **Academic Dishonesty will result in failure of this course.**