Syllabus

CSC 262 Programming for the Web

General Information

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Department
Computing Sciences

Course Prefix
CSC

Course Number
262

Course Title
Programming for the Web

Course Information

Credit Hours
3

Lecture Contact Hours
3

Lab Contact Hours
0

Other Contact Hours

Catalog Description
Programming for the Web is an introduction to web site development. Students will learn how to design and develop basic Web pages using current technologies and tools. Topics covered include the history of the World Wide Web, HTML5, Cascading Style Sheets (CSS), current browsers, and JavaScript. Other topics addressed include web site publishing, standardization, W3C, accessibility, social communication, and intellectual property rights as they relate to Web content.

Key Assessment
This course does not contain a Key Assessment for any programs

Prerequisites
CSC 115 with a grade of C or better

Co-requisites
First Year Experience/Capstone Designation

This course DOES NOT satisfy the outcomes applicable for status as a FYE or Capstone.

SUNY General Education

This course is designated as satisfying a requirement in the following SUNY Gen Ed category

None

FLCC Values

Institutional Learning Outcomes Addressed by the Course

Vitality
Inquiry
Perseverance
Interconnectedness

Course Learning Outcomes

Course Learning Outcomes

1. Create static and dynamic web pages using current web technologies including HTML5, Cascading Style Sheets (CSS), and JavaScript.

2. Build and publish a working web site.

3. Apply basic design standards to the development of web pages/sites and to the delivery of that web content over mobile devices.

4. Apply standard practices to Web content as defined by recognized professional organizations.

Outline of Topics Covered

I. HTML5 and Cascading Style Sheets (CSS)

A. Web Page Development

a. Web and HTML History
b. Web Page Structure

c. Elements and Tags

d. Character Sets

B. Web Site Development

a. Structure and Relationships

b. Navigation Lists

c. Links – External and Internal

d. Folder Paths

e. Linked Images and Image Maps

f. Metadata

C. Web Page Design with Cascading Style Sheets

a. History and Concepts

b. Style Sheets

   o User-Defined

   o External

   o Embedded

   o Inline

c. Style Cascade

d. Selector Patterns

e. Pseudo-Classes and Pseudo-Elements

D. Web Page Layouts with Cascading Style Sheets

a. Display Styles

b. Browser Extensions

c. Layout Designs

   o Fixed

   o Fluid

   o Elastic
d. Floating Elements

e. Margins and Padding

f. Borders and Rounded Corners

g. Positioning

  o Absolute

  o Relative

  o Fixed

  o Inherited

h. Overflow and Clipping

  a. Stacking Elements

E. Web Tables

  a. Structure

  b. Spanning Cells

  c. Columns and Row Groups

  d. Formatting and Layout

F. Web Forms

  a. Form Elements

  b. Form Action and Methods

  c. Web Forms and Web Servers

G. Design a Multimedia Web Site

  a. Digital Audio

  b. Digital Video

  c. Java applets

H. Advanced CSS

  a. Special Effects

  b. Print Media

  c. Mobile Media
d. Media Queries

I. XHTML
   a. History of XHTML
   b. Well-Formed Documents
   c. Validation

II. JavaScript
   I. Server-side and client-side programming
      a. Output to a Web document
      b. JavaScript functions
      c. External JavaScript Files
   B. Operators and Expressions
      a. Operators and Operands
      b. Conditional, Comparison, and Logical Operators
      c. Form Fields
      d. Date and Math objects
      e. Events and event handlers
      f. Timed Commands
   C. Arrays, Loops, and Conditionals
      a. Creating, Inserting, Extracting, Sorting, and Reversing Arrays
      b. Array Methods
      c. Conditional Statements
   D. Document Object Model
      a. The Document Object Model
      b. The Object Tree
      c. Referencing Objects
      d. Object Collections
      e. Object Properties
E. Document Nodes and Styles

a. Node Tree
   - Creating and Attaching Nodes
   - Traversing Element Nodes
   - Node Types, Names, and Values

b. Expanding and Collapsing a Document

c. Style Sheet Switcher