# CONESTOGA

# COURSE OUTLINE

**Course**  HTML (2012-2013)

**Code / Version**  PROG1390 (100)

**Total Hours**  36

**Credits**  3

**PreRequisite(s)**

**CoRequisite(s)**

## Course Description

HTML (Hypertext Markup Language) is the language behind every Web site on the World Wide Web.  Students will cover basic to advanced HTML topics, learning skills in text and graphics manipulation, hot links, tables, forms, Cascading Style Sheets, JavaScript, Image Maps, Frames and Flash. Students will learn how to create and upload Web sites with tools such as browsers, text editors, Telnet and FTP.

**PLAR Eligible:**  Yes

## Course Outcomes

Successful completion of this course will enable the student to:

1. List the components of HTML, programming, to be able to create elaborate, graphically enhanced pages with data tables and other advanced features.
2. Discuss the nature of an HTML tag (command), and how to modify the attributes of a tag.
3. Show how web pages are requested, located and transmitted by the browser/server combination.
4. Illustrate the tools used to create pages, including basic Text editors, simple graphical utilities, advanced What You See Is What You Get (WYSIWYG) utilities.
5. Apply basic layout styles, including "single page web site"," hierarchy based" web site, "linear based" web site, "frame based" web site.
6. Demonstrate how forms can collect data, and how a browser transmits data from a form to a server for processing (CGI basics).
7. Use the components of HTML programming to be able to create elaborate, graphically enhanced pages using advanced features.
8. Apply the layout and design techniques used to create frames.
9. Explain the advantages of image maps and cascading style sheets in improving a Web site.
10. Apply the basic concepts of the JavaScript language and its uses.
11. Identify other software enhancement programs used in Web site creation.

## Unit Outcomes

Successful completion of the following units will enable the student to:

1.0  Basic HTML

    1.1  Introduce nature of the World Wide Web, and discuss how a browser requests data from a remote server (TCP\IP), and how a remote server sends back data.

    1.2  Introduce simple tools for text data entry for web pages (NOTEPAD/TEXT PAD).

    1.3  Introduce basic text layout commands needed for single web page site organization.

    1.4  Discuss these tags and their extensions:

        1.4.1  \<P> \<BR> and \<HR>

        1.4.2  \<B> \</B>, \<I> \</I> and \<U> \</U>

        1.4.3  \<PRE> \</PRE>

        1.4.4  \<HI> \</HI> and 5 other variations

        1.4.5  \<HTML> \</HTML>

1.4.6 &lt;HEAD&gt; &lt;/HEAD&gt; and &lt;TITLE&gt; tag and &lt;META&gt; tag

1.4.7 &lt;BODY&gt; &lt;/BODY&gt;

1.4.8 &lt;FONT&gt; and all its attributes

1.5 Introduce lists (bulleted and numbered) using &lt;UL&gt;, &lt;OL&gt;, and &lt;DL&gt; commands, along with &lt;LI&gt;.

## 2.0 Links and Images

2.1 Introduce the concept of a link - an automated method of connecting one page to another.

2.2 Introduce link syntax &lt;A HREF="…"&gt; &lt;/A&gt;.

2.3 Discuss these link styles:

2.3.1 Link to a new remote server

2.3.2 Link to another page in the same site

2.3.3 Link to an email address

2.3.4 Link to another page using an image

2.3.5 Link to another location on the same page

2.4 Introduce character entities for access to special characters.

2.5 Introduce image insertion for graphical web pages using &lt;IMG&gt; command and all their attributes.

## 3.0 Tools

3.1 Introduce tools of the trade: dedicated HTML and graphical editors.

3.2 Use a WYSIWYG editor for HTML manipulation.

3.3 Discuss layout and design of websites.

3.4 Discuss the importance of structured code in the debugging process.

## 4.0 Forms

4.1 Introduce the concept of a form, and how a browser can talk to a server to transmit data gathered from a form. Discuss server side CGI scripting and connecting.

4.2 Introduce &lt;FORM&gt; command and its options.

4.3 Introduce various data entry capabilities, including:

4.3.1 Single line data entry

4.3.2 Checkbox

4.3.3 Radio button

4.3.4 Drop down selection

4.3.5 Listbox selection

4.3.6 Paragraph entry

4.3.7 Hidden and password data entry

4.3.8 Submit and Reset capabilities

## 5.0 Tables

5.1 Introduce &lt;TABLE&gt; command.

5.2 Look at how to define a table via counting the number of rows, and how to break up rows into individual cells.

5.3 Look at differences between "data cells" and "heading cells".

5.4 Discuss formatting pages using tables – cell sizes, backgrounds, fonts and colour.

5.5 Set up non-grid oriented tables and tables within tables.

5.6 View sites where tables have been utilized effectively.

5.7 Discuss audio and video data sources, how to process and insert into a web page.

6.0     Server Side Includes and Frames

    6.1     Discuss the concept of a Server Side Include (SSI), and how it can add dynamic content to your web pages.

    6.2     Show how to access these elements via SSI:

        6.2.1     Date of last modification of file

        6.2.2     Current date and time

        6.2.3     File size

        6.2.4     Page counters, random graphics, etc.

    6.3     Discuss the creation of a Frame based site, including the discussion of the frame control file, table of contents file, and main content files.

    6.4     Discuss importance of targeting your links to the appropriate named frame.

7.0     Frame Concepts

    7.1     Introduce the concept in layout and design of a Frame based site, including the many options available in the creation of a frame based page.

    7.2     Introduce frame creation commands, including:

        7.2.1     <FRAMESET> </FRAMESET>

        7.2.2     <FRAME SRC>

        7.2.3     <FRAME NAME>

    7.3     Introduce the importance of targeting your links to the appropriate named frame.

    7.4     Discuss the importance in design of rows or columns.

    7.5     Introduce frame attributes, such as:

        7.5.1     Scrolling

        7.5.2     Resizing

       7.5.3     Margins

        7.5.4     Borders

8.0     Frame Within Frames

    8.1     Look at the concept of Frames within Frames, discussing advantages and disadvantages.

    8.2     Introduce the options available when opening new windows.

    8.3     Look at some of the best professional site use of frames.

    8.4     Discuss the importance of navigation and appearance when using Frames.

9.0     Image Maps

    9.1     Discuss the differences between server-side and client-side image maps.

    9.2     Introduce various software programs used to create image maps.

    9.3     Introduce the creation of the images needed to create the map.

    9.4     Discuss the importance of content and length in the creation of Web sites.

10.0     Flash

    10.1     Introduce the pros and cons of navigating through a flash site.

    10.2     Introduce the concepts of the flash program.

    10.3     Look at the design and implications of using Flash.

    10.4     Discuss the importance of loading time and intro pages.

    10.5     Discuss the steps needed to add your flash creation to a web page.

11.0     Cascading Style Sheets

    11.1     Introduce the &lt;style &gt; tag and associated &lt;link&gt; tag.  Use inline style attributes vs. style definition blocks.

**Course**     HTML (2012-2013)

**Code / Version**   PROG1390 (100)

---

11.2    Use the <SPAN> and <DIV> tags and improve tags already learned, with style attributes.

11.3    Use styles within an HTML document and use the inline style attribute as well as the class attribute.

11.4    Keep styles external from your HTML document.

11.5    "Cascade" external, inline and in-document style definitions within a single tag.  (Using class and style attributes/properties within a single HTML tag).

11.6    Demonstrate usability and compatibility of style sheets with different browsers.

12.0    <u>JavaScript</u>

12.1    Introduce the concepts of using JavaScript in a Web site.

12.2    Discuss different JavaScript applications such as:

12.2.1    Date

12.2.2    Time

12.2.3    Counters

12.2.4    "rollovers"

12.2.5    Image links

12.2.6    Scrolling text

12.3    Discuss different sites and how they use JavaScript effectively.

13.0    <u>Java Applets and Server Side Scripting</u>

13.1    Introduce the concept of using pre-made Java Applets to enhance a Web Site.

13.2    Discuss some of the top Business sites looking at the advantages and disadvantages of each site.

13.3    Discuss the concept of a Server Side Script, and how it can add dynamic content to your web pages.

13.4    Look at the creation of:

13.4.1    Date of last modification of file

13.4.2    Current date and time

13.4.3    File size

13.4.4    Page counters, random graphics, etc.

---

## Required Student Resources

Castro, Elizabeth. HTML5, and CSS3 Visual QuickStart Guide (7th). Pearson Education.

---

## Optional Student Resources

---

## Evaluation

The minimum passing grade for this course is 55 (D).

In order to successfully complete this course, the student is required to meet the following evaluation criteria:

| | |
|---|---|
| Assignments | 40.00 |
| Tests/Projects | 60.00 |
| | 100.00 % |

---

## Other

---

**Course**   HTML (2012-2013)

**Code / Version**   PROG1390 (100)

Conestoga College is committed to providing academic accommodations for students with documented disabilities. Please contact the Accessibility Services Office.

**Prepared By**   Chris Kappes, Randy Kolenko, Earle Lennox

**School**   Information Technology

**Date**   2012-05-10