

GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
Division of Learning Technologies
Instructional Design and Technology (IDT) Program
EDIT 530 DL1
Scripting and Programming: HTML 5, 2 Credits
Spring 2014, January 21 - March 17, 2014
Course meets online via MyMasonPortal/Courses

Instructor: Betsy Klein, EdD
Email Address: mklein11@gmu.edu
Email Response Time: 24 hours
Office Hours: By appointment only

COURSE DESCRIPTION

Prerequisites/Corequisites

None.

University Catalog Description

Enables development of computer-based educational materials using widely known educational scripting language. Students explore basic authoring capabilities, and learn to apply those capabilities by designing and producing materials using commands, procedures, and functions of scripting language.

Expanded Course Description

Students will utilize the features, elements and attributes of the web page markup language HTML to **design, render and publish** a web-based product.

Delivery Method

This course will be delivered online using an asynchronous (not "real time") format via the Blackboard learning management system housed in the MyMason portal. The course will utilize a combination of readings, hands-on experiences, research activities, threaded discussions and projects. To participate in this course, students will need the following resources: (a) Internet access with a standard up-to-date browser (Mozilla Firefox and Internet Explorer work best), (b) Active Mason email account and password, and (c) MyMason portal access (go to

<https://mymasonportal.gmu.edu> to review system requirements for running MyMason portal from your home or workplace). The course site will be open to students **48 hours** before the start of the Spring semester.

LEARNER OUTCOMES

At the conclusion of this course, students will be able to:

- Demonstrate an understanding of HTML structure and elements by generating HTML code.
- Identify standards-based best practices utilizing HTML code.
- Discover the enhanced capability available through HTML5 with multimedia and interactive elements.
- Recognize the multiple platforms for implementing HTML code.

PROFESSIONAL STANDARDS

The World Wide Web Consortium (W3C) is an international community incorporating member organizations that collaborate to develop web standards.

W3C publishes documents that define Web technologies. These documents are recommendations designed to promote consensus, fairness, public accountability, and quality. These published recommendations are considered Web standards.

This course adheres to the W3C published standards. The W3C standard for Web Design and Applications is concerned with the building and rendering of web pages, including HTML, CSS, SVG, device APIs, and other technologies for web applications. The standard identifies HTML (Hypertext Markup Language) and CSS (Cascading Style Sheets) as two of the core technologies for building web pages. The complete list of W3C standards is located at <http://www.w3.org/standards/>.

REQUIRED TEXT

The following text has been selected to provide students with a solid foundation for developing semantic web-based content that demonstrates accessibility standards:

Hyslop, Bruce. *The HTML Pocket Guide*. Berkeley, CA: Pearson, Peachpit Press. 2010.
ISBN: 978-032169974-9.

You may order from the Mason bookstore or from the book vendor of your choice.

Other assigned readings are web-based and identified on the COURSE SCHEDULE AND TOPICS section of this syllabus.

COURSE REQUIREMENTS

General Information

All assignments are due by 11:59 PM Eastern Time of the date indicated in each week's assignments published in the COURSE SCHEDULE AND TOPICS section of this syllabus. Due dates are also posted in the CALENDAR section of the Blackboard course site.

Grades for assignments date-stamped in Blackboard after the due date will be reduced by 10% for each day that the assignment is late. No late submissions will be accepted after the course end-date.

Netiquette

The goal is to be collaborative, not combative. Experience shows that even an innocent remark in an online environment can be easily misconstrued. Responses should be re-read before posted to ensure they are not interpreted as personal attacks.

COURSE ASSIGNMENTS

There are three (3) assignments required for successful completion of this course.

1. Threaded Discussions (45 points, 5 points each discussion)

There are nine (9) collaborative student-initiated discussions:

- Week 1: What web standards are recommended by author Bruce Hyslop?
Explain why.
- Week 2: Report your success with the CSS quiz. Identify any tricky questions.
- Week 3: Usage of dd element – Should content be restricted to definitions, or are other description relationships appropriate?

- Week 4: Why is “href” the most powerful attribute for an HTML element? Provide examples.
- Week 4: Compare the use of the anchor element in HTML5 and prior versions.
- Week 5: What does the canvas element bring to the table?
- Week 5: Are the techniques for embedding media content in HTML clear or confusing? Explain why.
- Week 6: Identify the pros and cons of allowing the input element attribute “autocomplete” default to “on”. What is your best practice recommendation?
- Week 8: Identify your browser and discuss the specific HTML5 elements supported by your browser.

Each student is expected to participate in the threaded discussions in a meaningful way, with at least two (2) comments for each discussion. One posting should be a response to the original discussion topic and at least one posting should be a response to another student’s observation. Students are encouraged to contribute relevant comments beyond the minimum expectation.

Student responses should add significantly to the discussion with supported evidence as appropriate. Comments will be evaluated based on quality and collaborative value, and timeliness for meeting the weekly deadline indicated in the COURSE SCHEDULE AND TOPICS. For more information on how discussion postings are evaluated, please consult the *Threaded Discussion Series Grading Rubric* below and also posted on the Blackboard course site.

2. Build Complex Table in HTML (20 points)

Develop a table for the DC Circulator bus routes. See <http://www.dccirculator.com/>

Through a text editor (such as WordPad) use HTML to render an accessible complex table structure for the five (5) DC Circulator routes. The table should label each route, identifying the corresponding periods of operation and the stops (in one direction only) for each route. The table code will be evaluated based on accurate representation, effective use of styling techniques and accessibility conformity. Text files with HTML and CSS coding are to be posted through the GRADED ASSIGNMENTS link by the due date listed in the COURSE

SCHEDULE AND TOPICS. For more information on how this assignment is evaluated, please consult the *Build Complex Table in HTML Grading Rubric* below and also posted on the Blackboard course site.

3. Develop Website Page Outline with HTML5 Page Segment Elements (35 points)

Use HTML5 page segment elements to build an outline for a website homepage. At a minimum the page layout should incorporate HTML5 elements: article, aside, nav, section. The webpage content is optional; one suggestion would be to structure a personal website incorporating a photo gallery and a personal social content area. The page code will be evaluated based on accurate representation, semantic presentation and effective use of styling techniques. Text files with HTML and CSS coding are to be posted through the GRADED ASSIGNMENTS link by the due date listed in the COURSE SCHEDULE AND TOPICS. For more information on how this assignment is evaluated, please consult the *Develop Website Page Outline Grading Rubric* below and also posted on the Blackboard course site.

GRADING POLICIES

General information

The evaluation of student performance is related to the student's demonstration of the course outcomes. All work is evaluated on its relevance to the specific assignment, comprehensiveness of information presented, specificity of application, clarity of communication, and the analytical skills utilized, as documented in the respective grading rubrics at the end of this syllabus and on the Blackboard course site.

Great care is given to evaluating student performance based on the requirements documented in the grading rubrics for each assignment. As such, grades are not negotiable. In the event that, following discussions with the instructor, a student feels that his/her grade is unfair the grade may be appealed using the university's appeal process described at <http://catalog.gmu.edu/content.php?catoid=17&navoid=1274#grading>.

Grading Scale

The grading scale used in this course is the official George Mason University scale. Decimal percentage values $\geq .5$ will be rounded up (e.g., 92.5% will be rounded up to 93%); decimal

down

Letter Grade	Total Points Earned
A	93% - 100%
A-	90% - 92%
B+	88% - 89%
B	83% - 87%
B-	80% - 82%
C	70% - 79%
F	< 70%

percentage values $< .5$ will be rounded (e.g., 92.4% will be rounded down to 92%).

ASSESSMENT RUBRICS

1. Threaded Discussion Series (total possible points: 5 per discussion X 9 discussions = 45 points)

Criteria	Does Not Meet Standard	Meets Standard	Exceeds Standard
Participation	<p>Number of postings does not meet minimum requirement.</p> <p><i>Point Value/Discussion:</i> 0 - .5</p>	<p>Number of postings meets minimum requirement.</p> <p><i>Point Value/Discussion:</i> .6 - .9</p>	<p>Number of postings meets or exceeds minimum requirement.</p> <p><i>Point Value/Discussion:</i> 1</p>
Relevance	<p>Postings lack substance and do not adequately reflect topic.</p> <p><i>Point Value/Discussion:</i> 0 - .9</p>	<p>Postings generally support topic content.</p> <p><i>Point Value/Discussion:</i> 1 - 1.9</p>	<p>Postings reflect appropriate and meaningful observations based on the topic content.</p> <p><i>Point Value/Discussion:</i> 2</p>
Collaborative Value	<p>Postings do not have enough information to adequately inform.</p> <p><i>Point Value/Discussion:</i> 0 - .9</p>	<p>Postings provide some content of general interest to the reader.</p> <p><i>Point Value/Discussion:</i> 1 - 1.9</p>	<p>Postings offer insight and convey knowledge.</p> <p><i>Point Value/Discussion:</i> 2</p>

2. Build Complex Table in HTML (total possible points: 20)

Criteria	Does Not Meet Standard	Meets Standard	Exceeds Standard
Accurate Representation	<p>Table does not accurately replicate the schedule information.</p> <p><i>Point Value/Discussion:</i> 0 - 2.9</p>	<p>Table conveys the schedule information correctly.</p> <p><i>Point Value/Discussion:</i> 3 - 6.9</p>	<p>Table design is graphically appealing. Table data is presented correctly and easy to decipher.</p> <p><i>Point Value/Discussion:</i> 7</p>
Effective Use of Styling Techniques	<p>Mark up of tabular data does not utilize appropriate table elements.</p> <p><i>Point Value/Discussion:</i> 0 - 2.9</p>	<p>Mark up of tabular data results in an adequate table structure.</p> <p><i>Point Value/Discussion:</i> 3 - 5.9</p>	<p>Tabular data elements and attributes are utilized to effectively structure the table presentation.</p> <p><i>Point Value/Discussion:</i> 6</p>
Accessibility Conformity	<p>Table structure does not address accessibility.</p> <p><i>Point Value/Discussion:</i> 0 - 2.9</p>	<p>Table structure adheres to some accessibility concepts.</p> <p><i>Point Value/Discussion:</i> 3 - 6.9</p>	<p>Table structure incorporates features resulting in a fully accessible table.</p> <p><i>Point Value/Discussion:</i> 7</p>

3. **Develop Website Page Outline with HTML5 Page Segment Elements (total possible points: 35)**

Criteria	Does Not Meet Standard	Meets Standard	Exceeds Standard
Accurate Representation	<p>Webpage outline lacks structure and segments.</p> <p><i>Point Value/Discussion:</i> 0 - 4.9</p>	<p>Webpage outline is suitable for a website homepage.</p> <p><i>Point Value/Discussion:</i> 5 - 11.9</p>	<p>Webpage outline provides for an informative and interesting website homepage.</p> <p><i>Point Value/Discussion:</i> 12</p>
Effective Use of Styling Techniques	<p>Mark up of tabular data does not utilize appropriate table elements.</p> <p><i>Point Value/Discussion:</i> 0 - 4.9</p>	<p>Webpage outline includes the minimum required elements.</p> <p><i>Point Value/Discussion:</i> 5 - 10.9</p>	<p>Webpage outline is an effective template that incorporates elements and attributes beyond the required minimum.</p> <p><i>Point Value/Discussion:</i> 11</p>
Semantic Presentation	<p>HTML elements used do not reflect the nature of the intended content.</p> <p><i>Point Value/Discussion:</i> 0 - 4.9</p>	<p>HTML elements are used appropriately within the webpage outline.</p> <p><i>Point Value/Discussion:</i> 5 - 11.9</p>	<p>HTML elements are used effectively and pass validation for syntax errors.</p> <p><i>Point Value/Discussion:</i> 12</p>

GMU POLICIES AND RESOURCES FOR STUDENTS

- a. Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/the-mason-honor-code/>].
- b. Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/.html>].
- c. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it

regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.

d. The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].

e. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].

f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.

g. The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See <http://writingcenter.gmu.edu/>].

PROFESSIONAL DISPOSITIONS

Students are expected to exhibit professional behaviors and dispositions at all times.

CORE VALUES COMMITMENT

The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles. <http://cehd.gmu.edu/values/Revised>

For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website [See <http://gse.gmu.edu/>].

COURSE SCHEDULE AND TOPICS

Date	Topics/Learning Experiences	Readings/Activities/Assignments
Week 1 1/21 – 1/26	HTML Basics HTML Versions Best Practices	Read HTML Pocket Guide Chapter 1: HTML Basics. Research online: unobtrusive Javascript. Read <i>Handling Character Encodings in HTML and CSS</i> . See http://www.w3.org/International/tutorials/tutorial-char-enc/ . Read <i>HTML5 Code Formatting Syntax: A Recommendation</i> . See http://www.htmlfiver.com/extras/html5-code-syntax/ . Assignment due by 1/26/14: <ul style="list-style-type: none"> • Discussion - What web standards are recommended by author Bruce Hyslop? Explain why.
Week 2 1/27 – 2/2	Structure and Sections Web Addressing: URI Web Page Title & SEO CSS Overview	Read HTML Pocket Guide Chapter 2: Primary Structure and Sections and Chapter 3: Document Head. Read about URIs. See http://www.w3.org/Addressing/ . Read about SEO. See http://searchengineland.com/guide/what-is-seo . Engage in online CSS tutorial. When ready, take online quiz. See http://www.w3schools.com/css/ . Assignment due by 2/2/14: <ul style="list-style-type: none"> • Discussion - Report your success with the CSS online quiz. Identify any tricky questions.
Week 3 2/3 – 2/9	DOCTYPE Declaration List-Related Elements	Read about strict vs. transitional DOCTYPE declarations. See http://www.w3schools.com/tags/tag_doctype.asp . Read HTML Pocket Guide Chapter 4: Lists. Assignment due by 2/9/14: <ul style="list-style-type: none"> • Discussion - Usage of dd element. Should content be restricted to definitions, or are other description relationships appropriate?

<p>Week 4 2/10 – 2/16</p>	<p>Text Elements Anchor Element Versatility HTML5 Text Semantic Elements</p>	<p>Read HTML Pocket Guide Chapter 5: Text and Chapter 12: Text.</p> <p>Assignments due by 2/16/14:</p> <ul style="list-style-type: none"> • Discussion - Why is “href” the most powerful attribute for an HTML element? Provide examples. • Discussion - Compare the use of the anchor element in HTML5 and prior versions.
<p>Week 5 2/17 – 2/23</p>	<p>Embedded Content</p> <ul style="list-style-type: none"> • Images • Media Objects <p>HTML5 Multi-Media Native Support</p>	<p>Read HTML Pocket Guide Chapter 6: Embedded Content and Chapter 13: Embedded Content.</p> <p>View canvas element demos and tutorials. See http://www.canvasdemos.com/. Learn more about browser support of the canvas element. See http://www.canvasdemos.com/about/</p> <p>Read <i>Flash Embedding Cage Match</i>. See http://www.alistapart.com/articles/flashembedcagematch/.</p> <p>Read <i>Detecting Flash Player versions and embedding SWF files with SWFObject 2</i>. See http://code.google.com/p/swfobject/.</p> <p>Assignments due by 2/23/14:</p> <ul style="list-style-type: none"> • Discussion - What does the Canvas element bring to the table? • Discussion - Are the techniques for embedding media content in HTML clear or confusing? Explain why.
<p>Week 6 2/24 – 3/2</p>	<p>Form Related Elements HTML5 Form-related Elements</p>	<p>Read HTML Pocket Guide Chapter 7: Forms and Chapter 14: Forms.</p> <p>Assignment due by 3/2/14:</p> <ul style="list-style-type: none"> • Discussion - Identify the Pros and Cons of allowing the Input element attribute “autocomplete” default to “on”. What is your best practice recommendation?

<p>Week 7 3/3 - 3/9</p>	<p>Tabular Data Elements</p> <p>Scripting Elements</p> <p>Frame Elements</p>	<p>Read HTML Pocket Guide Chapter 8: Tabular Data, Chapter 9: Scripting, and Chapter 10: Frames.</p> <p>Read about accessibility with complex table structures. See http://www.htmlfiver.com/extras/tables/.</p> <p>Assignment due by 3/9/14:</p> <ul style="list-style-type: none"> • Build complex table in HTML for DC Circulator Bus Route Schedule. Refer to http://www.dccirculator.com/. With a text editor (i.e. Notepad) use HTML to render an accessible complex table structure for the DC Circulator Bus Route Schedule. Post file(s) to the Graded Assignment link on the navigation panel.
<p>Week 8 3/10 – 3/17</p>	<p>HTML5 Page Segment Elements</p> <p>HTML5 Interactive Elements</p>	<p>Read HTML Pocket Guide Chapter 11: Primary Structure and Sections and Chapter 15: Interactive Elements.</p> <p>Assignments due by 3/17/14:</p> <ul style="list-style-type: none"> • Discussion - Browser support of HTML5. Refer to http://fmbip.com/. Identify your browser and discuss the specific HTML5 elements supported/not supported by your browser. • Develop website page outline with HTML5 Page Segment Elements. With a text editor (i.e. Notepad) use HTML5 page segment elements to render the layout for a website page. Post file(s) to the Graded Assignment link on the navigation panel.