George Mason University
College of Education and Human Development
Instructional Design and Technology (IDT) Program

EDIT 530.001 – Scripting and Programming: HTML 5
2 Credits, Fall 2017
August 28 – October 15, 2017 Course meets online via MyMasonPortal/Courses

Faculty

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Prerequisites/Corequisites

None

University Catalog Course 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.

Course Overview

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

Course Delivery Method

This course will be delivered online (76% or more) using an asynchronous format via Blackboard Learning Management system (LMS) housed in the MyMason portal. You will log in to the Blackboard (Bb) course site using your Mason email name (everything before @masonlive.gmu.edu) and email password. The course site will be available on Saturday August 26, 2017.

Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class meeting, such online participation requires undivided attention to course content and communication.

Technical Requirements

To participate in this course, students will need to satisfy the following technical requirements:

- High-speed Internet access with a standard up-to-date browser, either Internet Explorer or Mozilla Firefox is required (note: Opera and Safari are not compatible with Blackboard).
- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.
- The following software plug-ins for PCs and Macs, respectively, are available for free download:
    - Adobe Acrobat Reader: https://get.adobe.com/reader/
    - Windows Media Player: https://windows.microsoft.com/en-us/windows/downloads/windows-media-player/
    - Apple Quick Time Player: www.apple.com/quicktime/download/

Expectations

- Course Week:
  Because asynchronous courses do not have a "fixed" meeting day, our week will start on Monday, and finish on Sunday.
- Log-in Frequency:
  Students must actively check the course Blackboard site and their GMU email for communications from the instructor, class discussions, and/or access to course materials at least 2 times per week.
- Participation:
  Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- Technical Competence:
  Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.
- Technical Issues:
  Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- Workload:

Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the **Class Schedule** section of this syllabus. It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.

- Instructor Support:
  Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Those unable to come to a Mason campus can meet with the instructor via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.
- Netiquette:
  The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words*. Remember that you are not competing with classmates, but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications.
- Accommodations:
  Online learners who require effective accommodations to insure accessibility must be registered with George Mason University Disability Services.

Learner Outcomes or Objectives

This course is designed to enable students to do the following:

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

Professional Standards (World Wide Web Consortium – W3C)

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/HTML5, CSS3, 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
Hyslop, Bruce. *The HTML Pocket Guide*. Berkeley, CA: Pearson, Peachpit Press. 2010. ISBN: 978-032169974-9.

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy).

- **Assignments and Examinations**
    1. **Contribute to Course Wiki Topic Pages – Web Standards and Best Practices (total possible points: 10)**

       Each student is expected to submit at least one entry for each WiKi topic page. Responses should reflect an integration of the course readings and practical applications of concepts addressed in the course content. Submission occurs through the Blackboard Assignment link.

    2. **Weekly Threaded Discussions (total possible points: 40 – 10 points for each discussion)**

       There are four (4) collaborative student-initiated discussions, submitted through the Blackboard Discussion forum:

       Week 2: Two current "hot topic" concepts with web-based design and development are Accessibility and Responsive Design. What are the challenges you perceive for creating a responsive and accessible website?

       Week 3: Why is "href" the most powerful attribute for an HTML element? Provide examples.

       Week 4: What does the Canvas element provide? Explain.

       Week 5: Identify the Pros and Cons of allowing the Input element attribute "autocomplete" default to "on". What is your best practice recommendation?

    3. **Build Accessible Complex Table (total possible points: 20**)

       Develop an accessible complex table for the six DC Circulator bus routes. See http://www.dccirculator.com/ . Through a text editor (such as Notepad, WordPad) or web development tool (such as open source Aptana Studio), use HTML to render a table structure for the six (6) DC Circulator routes. The table should label each route, the stops for each route (one-way only), and the corresponding times of operation. Use CSS coding to apply styling elements to table borders and table cells. Then use a Web browser to test the result. Submit zipped HTML/CSS file(s)

through the Assignments folder on the Blackboard course site. The table code will be evaluated based on accurate representation, effective use of styling techniques and accessibility conformity.

4. **Develop Outline of Website Homepage using HTML5 (total possible points: 30)**

   Build an outline for a website homepage using HTML5 page segment elements and CSS styling. Select a topic of your choice, along with page layout and web content. (One suggestion would be to build a personal website to house your resume or portfolio.) At the minimum, the homepage should include these general requirements: Basic HTML5 structure (i.e., declaration, html, head, and body tags) and HTML5 elements: <article>, <nav>, <section>, <aside>. Use a text editor such as Notepad, WordPad, or Aptana to code the HTML/CSS, and a web browser to test your work. Submit zipped HTML/CSS text file(s) through the Assignments folder on the Blackboard course site. The webpage code will be evaluated based on accurate representation, effective use of styling techniques, and semantic presentation. For more information on how this assignment is evaluated, please consult the Assessment Rubric at the end of this document.

   Total Possible Points for all Deliverables: 100

- **Other Requirements**

  Other assigned readings are web-based and identified on the Class Schedule section of this syllabus.

  All assignments are due by 11:59 PM Eastern time of the date indicated in each week's assignments published in the Class Schedule 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.

- **Grading**

  Grading Policies: 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.

  Grading scale: The grading scale used in this course is the official George Mason University scale for graduate-level courses. Decimal percentage values ≥.5 will be rounded up (e.g., 92.5% will be rounded up to 93%); decimal percentage values <.5 will be rounded down (e.g., 92.4% will be rounded down to 92%).

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

Professional Dispositions

Students are expected to exhibit professional behaviors and dispositions at all times.
See https://cehd.gmu.edu/students/polices-procedures/

Class Schedule

COURSE SCHEDULE AND TOPICS

Date	Topics/Learning Experiences	Readings/Activities/Assignments
Week 1 8/28 – 9/3	HTML Basics HTML Versions Web Standards Web Accessibility Best Practices	Read *HTML Pocket Guide* Chapter 1: HTML Basics. Research online: unobtrusive Javascript. Read *Handling Character Encodings in HTML and CSS*. See http://www.w3.org/International/tutorials/tutorial-char-enc/. Read *HTML5 Code Formatting Syntax: A Recommendation*. See http://www.htmlfiver.com/extras/html5-code-syntax/. Read *GMU Guide to Creating Accessible Electronic Materials* Section III: Web Accessibility. See http://ati.gmu.edu/wp-content/uploads/Guide-to-Creating-Accessible-Electronic-Materials-7-MB-pdf.pdf Additional Resource: *iCITA HTML Best Practices*. See http://html.cita.uiuc.edu **Assignment due by 9/3/17:** • Wiki – Based on the readings, post two web standards and best practices.
Week 2 9/4 – 9/10	Structure and Sections Web Page Title & SEO CSS Fundamentals CSS Tutorial HTML Responsive Tutorial	Read *HTML Pocket Guide* Chapter 2: Primary Structure and Sections and Chapter 3: Document Head. Read about SEO. See http://searchengineland.com/guide/what-is-seo. Engage in online Lynda.com course: Learning CSS, Section 1 CSS Basics. Optional: Section 3: Common CSS Concepts. See https://www.lynda.com/SharedPlaylist/20a8db291be5472f976356972700e057?org=gmuLTI NOTE: You will need to sign in with your GMU Net ID and Password. For an Introduction to the Lynda.com courses available at GMU see https://lynda.gmu.edu/ Engage in the online CSS tutorial. Review the material and try the practice exercises. See http://www.w3schools.com/html/html_css.asp Engage in the online CSS Responsive tutorial. Review the material and try the practice exercise. See http://www.w3schools.com/html/html_responsive.asp **Assignment due by 9/10/17:** • Discussion – Two current "hot topic" concepts with web-based design and development are **Accessibility** and **Responsive** design. What are the challenges you perceive for creating a responsive and accessible website.
Week 3 9/11 – 9/17	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. Read *HTML Pocket Guide* Chapter 5: Text and Chapter 12:

	Text Elements Anchor Element Versatility	Text. **Assignment due by 9/17/17:** • Discussion - Why is "href" the most powerful attribute for an HTML element? Provide examples.
Week 4 9/18 – 9/24	Embedded Content • Images • Media Objects HTML5 Multi-Media Native Support	Read *HTML Pocket Guide* Chapter 6: Embedded Content and Chapter 13: Embedded Content. Learn more about browser support of the canvas element. See http://www.w3schools.com/tags/ref_canvas.asp Engage in the online HTML5 Canvas tutorial. Review the material and try the practice exercises. See http://www.w3schools.com/html/html5_canvas.asp Read *Flash Embedding Cage Match*. See http://www.alistapart.com/articles/flashembedcagematch/. **Assignments due by 9/24/17:** • Discussion - What does the Canvas element provide? Explain.
Week 5 9/25 – 10/1	Form Related Elements HTML5 Form-related Elements	Read *HTML Pocket Guide* Chapter 7: Forms and Chapter 14: Forms. **Assignment due by 10/1/17:** • Discussion - Identify the Pros and Cons of allowing the Input element attribute "autocomplete" default to "on". What is your best practice recommendation?
Week 6 10/2 - 10/8	Tabular Data Elements Scripting Elements Frame Elements	Read *HTML Pocket Guide* Chapter 8: Tabular Data, Chapter 9: Scripting, and Chapter 10: Frames. Read about accessibility with complex table structures. See http://www.htmlfiver.com/extras/tables/. **Assignment due by 10/8/17:** • Build complex table in HTML for the 6 DC Circulator Bus Route Schedules. Refer to http://www.dccirculator.com/. With a text editor (i.e. Notepad) use HTML to render an accessible complex table structure that identifies the stop schedule for the 6 DC Circulator Bus Routes. The table should label each route, the stops for each route (one-way only), and the corresponding times of operation. Use CSS coding to apply styling elements to table borders and table cells. Post file(s) to the Graded Assignment link on the navigation panel.
Week 7 10/09– 10/15	HTML5 Page Segment Elements HTML5 Interactive Elements	Read *HTML Pocket Guide* Chapter 11: Primary Structure and Sections and Chapter 15: Interactive Elements. **Assignments due by 10/15/17:** • 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. Select a topic of your choice, along with page layout

		and web content. (One suggestion would be to build a personal website to house your resume or portfolio.) At the minimum, the homepage should include these general requirements: Basic HTML5 structure (i.e., declaration, html, head, and body tags) and HTML5 elements: <article>, <nav>, <section>, <aside>. Post file(s) to the Graded Assignment link on the navigation panel.

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

Core Values Commitment

The College of Education and 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/.

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see http://oai.gmu.edu/the-mason-honor-code/).
- Students must follow the university policy for Responsible Use of Computing (see http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/).
- Students are responsible for the content of university communications sent to their Mason 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.
- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see http://ods.gmu.edu/).
- Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or https://cehd.gmu.edu/aero/tk20. Questions or concerns regarding use of Blackboard should be directed to http://coursessupport.gmu.edu/.
- For information on student support resources on campus, see https://ctfe.gmu.edu/teaching/student-support-resources-on-campus

For additional information on the College of Education and Human Development, please visit our website https://cehd.gmu.edu/students/ .

Assessment Rubric

Develop Website Page Outline with HTML5 Page Segment Elements

(total possible points: 30)

Criteria	Does Not Meet Standard	Meets Standard	Exceeds Standard
Accurate Representation	Webpage outline lacks structure and segments. *Point Value:* 0 - 4.9	Webpage outline is suitable for a website homepage. *Point Value:* 5 - 9.9	Webpage outline provides for an informative and interesting website homepage. *Point Value:* 10
Effective Use of Styling Techniques	Mark up of tabular data does not utilize appropriate table elements. *Point Value:* 0 - 4.9	Webpage outline includes the minimum required elements. *Point Value:* 5 - 9.9	Webpage outline is an effective template that incorporates elements and attributes beyond the required minimum. *Point Value:* 10
Semantic Presentation	HTML elements used do not reflect the nature of the intended content. *Point Value:* *0 - 4.9*	HTML elements are used appropriately within the webpage outline. *Point Value:* 5 – 9.9	HTML elements are used effectively and pass validation for syntax errors. *Point Value:* 10