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

EDIT 530.C01 – Scripting and Programming: HTML 5
2 Credits, Summer 2019
June 24 – July 27, 2019 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 June 22, 2019.

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 standard up-to-date browsers. To get a list of Blackboard's supported browsers see: https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#supported-browsers

  To get a list of supported operation systems on different devices see: https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#tested-devices-and-operating-systems

- 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 will need a headset microphone for use with the Blackboard Collaborate web conferencing tool. [Delete this sentence if not applicable.]
- 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: [Add or delete options, as desire.]
  - Adobe Acrobat Reader: https://get.adobe.com/reader/
  - Windows Media Player: https://support.microsoft.com/en-us/help/14209/get-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 Sunday, and finish on Saturday.
- 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 Texts

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)**

     Week 1: Each student is expected to submit at least one entry for both WiKi topic pages. 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: 10)**

     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?

  3. **Develop HTML Form (total possible points: 25)**

     Week 3: Develop an accessible form using HTML elements and attributes. With a text editor (such as Notepad with Windows, Text Edit with MAC) or web development tool, render the layout for a web-based form of your choosing. (Make it more interesting by selecting a topic of interest to you.) At the minimum, the form should include these general requirements: Basic HTML5 structure (i.e., declaration, html head and body tags), <form> , <label>and at least three <input> types. The form code will be evaluated based on accurate representation, effective use of styling techniques and accessibility conformity. Post file(s) to the Graded Assignment link on the navigation panel.

  4. **Build Accessible Complex Table (total possible points: 25**)

     Week 4: Develop an accessible complex table for the six DC Circulator bus routes. See http://www.dccirculator.com/ . Through a text editor (such as Notepad with Windows, Text Edit with MAC) or web development tool, 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. Post file(s) to the Graded Assignment link on the navigation panel.

5. **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 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. Post file(s) to the Graded Assignment link on the navigation panel.

   Total Possible Points for all Deliverables: 100
   For more information on how these assignments are evaluated, please consult the Assessment Rubrics at the end of this document.

- **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

See https://cehd.gmu.edu/students/polices-procedures/

Class Schedule

COURSE SCHEDULE AND TOPICS

Date	Topics/Learning Experiences	Readings/Activities/Assignments
Week 1 6/23 – 6/29	HTML Basics HTML Structure and Sections HTML Document Head Web Standards Best Practices Content: HTML Presentation: CSS Behavior: JavaScript	Read *HTML Pocket Guide* **Chapter 1: *HTML Basics***. Read *HTML Pocket Guide* **Chapter 2: *Primary Structure and Sections.*** Read *HTML Pocket Guide* **Chapter 3: *Document Head***. Read *HTML5 Code Formatting Syntax: A Recommendation*. See http://www.htmlfiver.com/extras/html5-code-syntax/. Engage in online Lynda.com course: *Introduction to Web Design & Development*, **Chapter 1 Sections: *Exploring HTML; Exploring CSS; Exploring Javascript*** 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/ Explore the w3schools online HTML5 tutorial. From the menu select ***Basic, Head elements, CSS***. See https://www.w3schools.com/html/ Additional Resource: ***Online HTML5 Style Guide:*** See https://www.w3schools.com/html/html5_syntax.asp Additional Resource: ***iCITA HTML Best Practices***. See http://html.cita.uiuc.edu **Assignment due by 6/29/2019:** • Wiki – Based on the readings, post to each **Course Wiki Topic Page – Web Standards and Best Practices.**
Week 2 6/30 – 7/6	List Elements Text Elements Web Accessibility Responsiveness	Read *HTML Pocket Guide* **Chapter 4: *Lists.*** Read *HTML Pocket Guide* **Chapter 5: *Text***. Read *HTML Pocket Guide* **Chapter 12: *Text***. 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

		Engage in the online HTML Responsive tutorial. Review the material and try the practice exercise. See http://www.w3schools.com/html/html_responsive.asp **Assignment due by 7/6/19:** • 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 7/7 – 7/13	Embedded Content Forms	Read *HTML Pocket Guide* **Chapter 6: *Embedded Content*. *(Images and Objects)*.** Read *HTML Pocket Guide* **Chapter 7: *Forms***. Read *HTML Pocket Guide* **Chapter 14: *Forms***. Engage in online Lynda.com course: *HTML & CSS: Creating Forms* **Chapter 2: *Creating Forms with HTML*** and **Chapter 3: *Making Forms Interactive*.** 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/ Additional resource: **Accessible Forms** See https://htmldog.com/guides/html/advanced/forms **Assignment due by 7/13/19:** Develop an accessible form using HTML elements and attributes. With a text editor (i.e. Notepad with Windows, Text Edit with MAC) render the layout for a web-based form of your choosing. (Make it more interesting by selecting a topic of interest to you.) At the minimum, the form should include these general requirements: Basic HTML5 structure (i.e., declaration, html head and body tags), <form> , <label>and at least three <input> types . The form code will be evaluated based on accurate representation, effective use of styling techniques and accessibility conformity. Post file(s) to the Graded Assignment link on the navigation panel.
Week 4 7/14 – 7/20	Tabular Data Elements Accessibility	Read *HTML Pocket Guide* **Chapter 8: *Tabular Data***. Additional Resources for building accessible tables: ***Creating Accessible Tables***. See https://webaim.org/techniques/tables/data ***Bring on the Tables***. See https://www.456bereastreet.com/archive/200410/bring_on_the_tables/

		Accessible Data Tables. See http://usability.com.au/2005/06/accessible-data-tables-2005/ **Assignments due by 7/20/19:** • 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 5 7/21 – 7/27	HTML5 Page Segment Elements HTML5 Media Elements HTML5 Interactive Elements	Read *HTML Pocket Guide* **Chapter 11: *Primary Structure and Sections.*** Read *HTML Pocket Guide* **Chapter 13: *Embedded Content (Images, Media and More)*** Read *HTML Pocket Guide* **Chapter 15: *Interactive Elements*.** Engage in the online HTML5 Canvas tutorial. Review the material and try the practice exercises. See http://www.w3schools.com/html/html5_canvas.asp **Assignments due by 7/27/19:** Develop a 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 https://catalog.gmu.edu/policies/honor-code-system/).

- 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 https://ds.gmu.edu/).

- Students must silence all sound emitting devices 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 RUBRICS

1. **Wiki (total possible points: 10 points)**

Criteria	Does Not Meet Standard	Meets Standard	Exceeds Standard
Participation	Number of submissions does not meet minimum requirement. *Point Value:* 0 - .9	Number of submissions meets minimum requirement. *Point Value:* 1 - 2.9	Number of submissions meets or exceeds minimum requirement. *Point Value:* 3
Relevance	Content is minimal and/or contains factual errors. *Point Value:* 0 - .9	Content is logically presented and accurate. *Point Value:* 1 - 2.9	Content reflects accurate and meaningful observations. *Point Value:* 3
Collaborative Value	Content does not have enough information to adequately inform. *Point Value:* *0 - 1.9*	Content provides details of general interest to the reader. *Point Value:* 2 – 3.9	Content offer insight and conveys knowledge. *Point Value:* 4

2. **Threaded Discussion (total possible points: 10 points)**

Criteria	Does Not Meet Standard	Meets Standard	Exceeds Standard
Participation	Number of postings does not meet minimum requirement. *Point Value/Discussion:* 0 - .9	Number of postings meets minimum requirement. *Point Value/Discussion:* 1 - 2.9	Number of postings meets or exceeds minimum requirement. *Point Value/Discussion:* 3
Relevance	Postings lack substance and do not adequately reflect topic. *Point Value/Discussion:* 0 - .9	Postings generally support topic content. *Point Value/Discussion:* 1 - 2.9	Postings reflect appropriate and meaningful observations based on the topic content. *Point Value/Discussion:* 3
Collaborative Value	Postings do not have enough information to adequately inform. *Point Value/Discussion: 0 - 1.9*	Postings provide some content of general interest to the reader. *Point Value/Discussion:* 2 – 3.9	Postings offer insight and convey knowledge. *Point Value/Discussion:* 4

3. **Build Accessible Form in HTML (total possible points: 25)**

Criteria	Does Not Meet Standard	Meets Standard	Exceeds Standard
Accurate Representation	Form does not include the required elements. *Point Value:* 0 - 2.9	Form provides required elements correctly. *Point Value:* 3 - 7.9	Form layout is graphically appealing. Form data is presented correctly and easy to decipher. *Point Value:* 8
Effective Use of Styling Techniques	Mark up of form data does not utilize appropriate form elements. *Point Value:* 0 - 2.9	Mark up of form data results in an adequate form structure. *Point Value:* 3 - 8.9	Form elements and attributes are utilized to effectively structure the form presentation. *Point Value:* 9
Accessibility Conformity	Form structure does not address accessibility. *Point Value:* *0 - 2.9*	Form structure adheres to some accessibility concepts. *Point Value:* 3 – 7.9	Form structure incorporates features resulting in a fully accessible form. *Point Value:* 8

4. **Build Complex Table in HTML (total possible points: 25)**

Criteria	Does Not Meet Standard	Meets Standard	Exceeds Standard
Accurate Representation	Table does not accurately replicate the schedule information. *Point Value:* 0 - 2.9	Table conveys the schedule information correctly. *Point Value:* 3 - 7.9	Table design is graphically appealing. Table data is presented correctly and easy to decipher. *Point Value:* 8
Effective Use of Styling Techniques	Mark up of tabular data does not utilize appropriate table elements. *Point Value:* 0 - 2.9	Mark up of tabular data results in an adequate table structure. *Point Value:* 3 - 8.9	Tabular data elements and attributes are utilized to effectively structure the table presentation. *Point Value:* 9
Accessibility Conformity	Table structure does not address accessibility. *Point Value:* *0 - 2.9*	Table structure adheres to some accessibility concepts. *Point Value:* 3 – 7.9	Table structure incorporates features resulting in a fully accessible table. *Point Value:* 8

5. **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 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