GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
GRADUATE SCHOOL OF EDUCATION
Instructional Design and Technology (IDT) Program

EDIT 530 A02: Scripting & Programming HTML5
2 Credits, Summer 2015, May 18 - June 20
Course meets online via MyMason Portal/Courses

PROFESSOR:
Name: Glendia Fowler-Cartwright
Office hours: By appointment only
Email Address: gfowlerc@gmu.edu
Email Response Time: 24 hours

COURSE DESCRIPTION:

    A. Prerequisites/Corequisites
       None.

    B. 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.

    C. Expanded Course Description
       Students will apply the features, elements and attributes of the web page markup
       language HTML5 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 (LMS) housed in the MyMason portal. The course will
utilize a combination of readings, research activities, threaded discussions and projects. You will
log in to the Blackboard course site using your Mason email name (everything before
"@masonlive.gmu.edu") and email password. The course site will be open to students 48 hours
before the start of the summer semester.

TECHNICAL REQUIREMENTS:

To participate in this course, students will need the following resources:
- High-speed Internet access with a standard up-to-date browser, either Internet Explorer
  or Mozilla Firefox. (Opera and Safari are **not** compatible with Blackboard.)
- 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 the course requirements.
- The following software plug-ins for Pcs and Macs respectively, available for free downloading by clicking on the link next to each plug-in:
    - Adobe Acrobat Reader: http://get.adobe.com/reader/
    - Windows Media Player: http://windows.microsoft.com/en-US/windows/download-windows-media-player
    - Apple QuickTime Player: http://www.apple.com/quicktime/download/
- A headset microphone for use with the Blackboard Collaborate web conferencing tool.

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. At a **minimum** this should be **three (3)** times per week.
- **Participation**: Students are expected to actively engage in all course activities throughout the semester, which include viewing of 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 are expected to seek assistance if they are struggling with technical components of the course.
- **Technical Issues**: Students should expect that they could experience some technical difficulties at some point in the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- **Workload**: Expect to log in to this course **at least three (3) times a week** to read announcements, participate in the discussions, and work on course materials. Remember, this course is **not** self-paced. There are **specific deadlines** and **due dates** listed in the **COURSE SCHEDULE** section of this syllabus to which you are expected to adhere. It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.
- **Advising:** If you would like to schedule a one-on-one meeting to discuss course requirements, content or other course-related issues, and you are unable to come to the Mason campus, we can meet via telephone or web conference. Send me an email to schedule your one-on-one session and include your preferred meeting method and suggested dates/times.
- **Netiquette:** Our goal is to be collaborative, not combative. Experience shows that even an innocent remark in the online environment can be misconstrued. I suggest that you always re-read your responses carefully before you post them to encourage others

from taking them as personal attacks. Be positive in your approach to others and diplomatic with your words. I will do the same. Remember, you are not competing with each other but sharing information and learning from one another as well as from the instructor.

COURSE REQUIREMENTS:

General Information
- Course assignments are due by 11:59 PM Eastern Time of the date indicated each week as published in the Course Schedule and Topics section of this syllabus. These due dates are also posted in the Calendar section of the Blackboard course site.
- Grades for assignments that are 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.
- Log-in Frequency: Students must actively check the course Blackboard site and their GMU email for ongoing communications from the instructor throughout the semester.
- Students are expected to actively engage in all course activities throughout the semester, which include viewing of all course materials, completing course activities and assignments, and participating in course online discussions and group interactions.
- It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.

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/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 TEXTBOOK:

Nixon, R. (2015). *HTML5: 20 Lessons to Successful Web Development*. New York, New York: McGraw-Hill Osborne. ISBN: 9780071841559.

COURSE ASSIGNMENTS:

1. Weekly Threaded Discussions (Total possible points: 25 -- 5 points for each discussion)

There are five (5) collaborative student-initiated discussions:

Week 1: What standards are defined by W3C for writing HTML5 syntax? Explain.
Week 2: Anyone involved with Web design/development should be interested in accessibility. Why? Explain.
Week 3: Why is "href" the most powerful attribute for an HTML element? Provide examples.
Week 4: Are the techniques for embedding media content in HTML5 clear or confusing? Explain why.
Week 5: What does the HTML5 canvas element provide?

Discussion board topics will be posted the Sunday before the beginning of each on-line week. Each student is expected to participate in the threaded discussions in a meaningful way, with at least **two (2)** comments for each discussion. Post at least one primary response to the original discussion topic by midnight (EST) on the Wednesday of each online week. Post at least one secondary comment that responds to another student's observation by noon (EST) on the Saturday of each online week.

Construct responses that reflect an integration of the course readings, relevant courses you have taken, and practical applications of concepts that have emerged in the literature. 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 deadlines indicated in the Course Schedule and Topics. For more information on how discussion postings are evaluated, consult the Assessment Rubric.

2. Build an Accessible Complex Table (Total possible points: 30)

Develop an accessible complex table for five DC Circulator bus routes. See http://www.dccirculator.com/. Through a text editor (such as Notepad, WordPad, or Dreamweaver), use HTML to render a table structure for the five (5) DC Circulator routes. Label each route, one stop for each route (one-way), and the corresponding times of operation. Use CSS coding to apply color to table borders and table cells.

Use a Web browser to test your work. Submit your HTML/CSS file(s) through the "Assignments" folder on the Blackboard course site on or before **6/13/2015, 11:59 PM**. (Your assignment will not be accepted after this date.)

The table code will be evaluated based on accurate representation, effective use of styling techniques and accessibility conformity. For more information on how this assignment is evaluated, please consult the Assessment Rubric: Build an Accessible Complex Table in this document and also posted on the Blackboard course site.

3. Develop an Outline of a Website Homepage using HTML5 (Total possible points: 45)

Build an outline for a website homepage using HTML5 elements and CSS coding. Select a business or education topic of your choice, along with page layout and web content. (One suggestion would be to build a personal website incorporating a photo gallery and a personal social content area.) Apply CSS coding and incorporate JavaScript.

At the minimum, your Homepage should include these general requirements:

- Basic HTML5 structure (i.e., Declaration, HTML Tag, Head Tag)
- HTML5 elements: <Header>, <NAV>, <Section>, Aside, Article, and <Video> and <Footer>.

Use a text editor such as Notepad, WordPad, or Dreamweaver to code the HTML/CSS, and a Web browser to test your work. Submit your HTML/CSS text file(s) through the "Assignments" folder on the Blackboard course site on or before **6/20/2015, 11:59 PM**. (Your assignment will not be accepted after this date.)

For more information on how this assignment is evaluated, please consult the Assessment Rubric: Develop an Outline of a Website Homepage using HTML5 in this document and also posted on the Blackboard course site.

Total Possible Points for all Deliverables: 100

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.

Grading Scale

The grading scale used in this course is the official George Mason University scale. 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 Points Earned
A	93% - 100%
A-	90% - 92%
B+	88% - 89%
B	83% - 87%
B-	80% - 82%
C	70% - 79%
F	< 70%

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/**).

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/**.

For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website at **http://gse.gmu.edu/.**

COURSE SCHEDULE AND TOPICS

	COURSE SCHEDULE AND TOPICS 5/18/2015 – 6/20/2015	
Week	**Topics/Learning Experiences**	**Readings/Activities/Assignments**
Week 1 5/18 - 5/23	• HTML Basics • HTML Versions • CSS Overview • Best Practices	• Read Lesson 1: An Introduction to HTML (See the course textbook.) • Research online the principles of unobtrusive JavaScript. • Read Handling Character Encodings in HTML and CSS: http://www.w3.org/International/tutorials/tutorial-char-enc/. • Engage in the online CSS tutorial. Review the material, and then complete the practice exercise: http://www.w3schools.com/html/html_css.asp • Read HTML5 Formatting Syntax: http://www.w3.org/TR/2011/WD-html5-20110525/syntax.html **Assignment:** Week 1 - Threaded Discussion What standards are defined by W3C for writing HTML5 syntax? *Explain*. **Due:** 5/23/2015, before 11:59 pm
Week 2 5/25 - 5/30	• Structure and Sections • Web Page Title & SEO • HTML Document Layout • Anchors • Text Elements • Web Accessibility	• Read about Search engine optimization (SEO): http://searchengineland.com/guide/what-is-seo • Read Lesson 2: The Layout of an HTML Document (See the course textbook.) • Read the article Designing Accessibility with HTML5: https://msdn.microsoft.com/en-us/magazine/jj863135.aspx • Read Lesson 6 – Using Hyperlinks (See the course textbook) **Assignment:** Week 2 - Threaded Discussion Anyone involved with Web design/development should be interested in accessibility. Why? Explain. **Due:** 5/30/2015, before 11:59 pm

Week 3 6/1 - 6/6	• DOCTYPE Declaration • List-Related Elements • HTML Table Overview • Accessible Complex Tables	• Read about strict vs. transitional DOCTYPE declarations: http://www.w3schools.com/tags/tag_doctype.asp. • Read Lesson 5: Lists and Tables (See the course textbook.) • Read Introduction to Tables: http://www.w3.org/TR/html401/struct/tables.html • Read about Accessible Complex Tables: http://www.htmlfiver.com/html-pocket-guide/extras/accessible-tables/ **Assignment:** <u>Week 3 -</u> <u>Threaded Discussion</u> Why is "href" the most powerful attribute for an HTML element? *Provide examples.* **Due:** 6/6/2015, before 11:59 pm **Assignment:** Build an Accessible Complex Table **Due:** 6/13/2015, before 11:59 pm
Week 4 6/8 - 6/13	• HTML5 Semantic Elements • Scripting Elements • Embedded Content • Media Objects • HTML5 Multimedia	• Read Lesson 8: What's New in HTML5 (See the course textbook.) • Read Lesson 18 – Playing Audio (See the course textbook.) • Read Lesson 19: Displaying Video (See the course textbook.) **Assignment:** <u>Week 4 – Threaded Discussion</u> Are the techniques for embedding media content in HTML5 clear or confusing? Explain why. **Due:** 6/13/2015, before 11:59 pm **Assignment:** Develop an Outline of a Website homepage using HTML5 **Due:** 6/20/2015, before 11:59 pm
Week 5 6/15 - 6/20	• HTML5 Page Segment • HTML5 Interactive Elements • Canvas element	• View canvas elements demos and tutorials: http://www.canvasdemos.com. • Read Browser support of the canvas element: http://www.canvasdemos.com/about/ • Read Chapter 9: Accessing the Canvas (See course textbook.) **Assignment:** <u>Week 5 -</u> <u>Threaded Discussion</u> What does the Canvas element provide? *Explain.* **Due:** 6/20/2015, before 11:59 pm

ASSESSMENT RUBRICS

1. **Weekly Threaded Discussions   (Total possible points: 25 -- 5 points per discussion)**

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

2. Build an Accessible Complex Table   (Total possible points: 30)

Criteria	Does Not Meet Standard	Meets Standard	Exceeds Standard
Accurate Representation	Table does not accurately replicate the schedule information. *Point Value/ Discussion: 0 - 5.9*	Table conveys the schedule information correctly. Point *Value/ Discussion: 6 – 9.9*	Table design is graphically appealing. Table data is presented correctly and easy to decipher. *Point Value/ Discussion: 10*
Effective Use of Styling Techniques	Markup of tabular data does not utilize appropriate table elements. *Point Value/ Discussion: 0 - 5.9*	Markup of tabular data results in an adequate table structure. *Point Value/ Discussion: 6 – 9.9*	Tabular elements and attributes are utilized to effectively structure the table presentation. *Point Value/ Discussion: 10*
Accessibility Conformity	Table structure does not address accessibility. *Point Value/ Discussion: 0 – 5.9*	Table structure adheres to some accessibility concepts. *Point Value/ Discussion: 6 – 9.9*	Table structure incorporates features resulting in a fully accessible table. *Point Value/ Discussion: 10*

3. **Develop an Outline of a Website Homepage using HTML5 (Total possible points: 45)**

Criteria	Does Not Meet Standard	Meets Standard	Exceeds Standard
Accurate Representation	Webpage outline lacks structure and segments. *Point Value/ Discussion: 0 – 6.9*	Webpage outline is suitable for a website homepage. *Point Value/ Discussion: 7 - 14.9*	Webpage outline provides for an informative and interesting website homepage. *Point Value/ Discussion: 15*
Effective Use of Styling Techniques	Webpage outline is missing the minimum required elements. *Point Value/ Discussion: 0 - 6.9*	Webpage outline includes the minimum required elements. *Point Value/ Discussion: 7 - 14.9*	Webpage outline is an effective template that incorporates elements and attributes beyond the required minimum. *Point Value/ Discussion: 15*
Semantic Presentation	HTML elements used do not reflect the nature of the intended content. *Point Value/ Discussion: 0 - 6.9*	HTML elements are used appropriately within the webpage outline. Point Value/ Discussion: 7 – 14.9	HTML elements are used effectively and pass validation for syntax errors. Point Value/ Discussion: 15