WEB ACCESSIBILITY AND DESIGN

GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
INSTRUCTIONAL DESIGN AND TECHNOLOGY

EDIT 426-B01/EDIT 526-B01
Web Accessibility and Design
Summer Semester 2015 (3 credits)
June 1 – July 23, 2015
Online

PROFESSOR:

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COURSE DESCRIPTION:

Official Course Catalog Description:

EDIT 426 – Provides instruction for accessible web design using HTML and existing authoring tools. Section 508 web accessibility standards and assistive technologies to access the computer will be explored.

EDIT 526 - Develops understanding of principles of universal web design. Students apply this understanding by designing and developing accessible web site using web authoring tools.

Prerequisites: None.

DELIVERY METHOD:

This course will be delivered online using an asynchronous format via the Blackboard learning management system (LMS) housed in the MyMason portal. 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 available June 1.

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
- You 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.

REQUIRED HARDWARE:

You will need access to:
- A **Windows or Macintosh computer** with:
  - a fast and reliable **broadband internet connection** (e.g., cable, DSL)
  - **speakers or headphones**
  - a **microphone**
- A **video recording device** (can be a phone, computer, webcam, video camera, or anything that can record videos)

REQUIRED SOFTWARE:

NOTE: You do not necessarily need to buy any of the software listed below, but you will need access to it. All of the required software will be available in the classroom computer labs. Please plan accordingly if you are going to use the 30-day demo.
- **Readers and media players:**
  - **Adobe Reader** (free) (or other PDF reader, such as Preview on a Mac) http://get.adobe.com/reader/
  - **Quicktime** (free) http://www.apple.com/quicktime/download/
  - **Adobe Flash player** (free) http://get.adobe.com/flashplayer/
- **Word processing:**
  - **Microsoft Office** http://office.microsoft.com
    NOTE: If you don't have a license, Office is available in nearly all computer labs on all campuses. You can also access it from home using the Virtual Computing Lab (VCL) https://www.vcl.gmu.edu.
- **Screen reader** (choose at least one):
  - **Windows**
    - **JAWS** (commercial product; most popular screen reader; trial version available for 40 minutes at a time before you have to reboot the computer to keep using it, with essentially no expiration date) http://www.freedomscientific.com/products/fs/jaws-product-page.asp
    - **NVDA** (free) http://www.nvda-project.org/
  - **Mac**

- ▪ **VoiceOver** (free, already installed on Macs)
- **Multimedia content development**
  - ○ **PC & Mac – Camtasia** (commercial product; Camtasia has captioning capability that is set to Section 508 compliance standards; there is a trial version you can use for 30 days - http://www.techsmith.com/download/camtasia/)

OPTIONAL SOFTWARE

- **Antivirus software**, free for students at http://antivirus.gmu.edu
- **Read and Write Gold** (free) by TextHelp. For an explanation of the software, see http://www.texthelp.com/videotours/rw10marketing/intro/intro_stream_us.html This software can improve reading comprehension and learning for people with learning disabilities or those whose native language is not English. Mason is offering this free to all students, please visit Mason's Assistive Technology Initiative http://ati.gmu.edu/ for a copy of the software.

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 3-4 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 3-4 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 **CLASS 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.

LEARNER OUTCOMES:

This course is designed to enable students to:
1. Understand disability types and the accessibility challenges presented by digital technologies
2. Create accessible Word and PDF documents
3. Create video captioning and audio description for video
4. Evaluate the accessibility of existing web content
5. Understand the concept and principles of universal design
6. Apply the principles of universal design and accessibility to a lesson plan or work product
7. Create an organization-wide accessibility policy for the procurement, creation, and delivery of technology products and services
8. Create training or revise lesson plans or training that can be used within an organization of your choosing (school, work, GMU, etc.)

PROFESSIONAL/TECHNICAL STANDARDS TAUGHT:

- Media and document accessibility
  - Video captioning and audio descriptions
  - Adobe PDF accessibility
  - MS Word accessibility
- Accessibility laws and guidelines
  - Section 508 (U.S.)
  - Americans with Disabilities Act (ADA)
  - Mandate 376 (European Commission)
  - Web Content Accessibility Guidelines (WCAG) 2.0
- IBSTPI Instructional Design Competencies:
  - Professional Foundations:
    - Identify and resolve ethical and legal implications of design in the work place.
  - Planning and Analysis:
    - Identify and describe target population characteristics.
    - Analyze the characteristics of existing and emerging technologies and their use in an instructional environment.
    - Reflect upon the elements of a situation before finalizing design solutions and strategies.
  - Design and Development:
    - Design instruction that reflects an understanding of the diversity of learners and groups of learners.

REQUIRED TEXTS:

None. All reading materials are available on the web.

Recommended:
Rose, D.H., & Meyer, A. (2002). Teaching every student in the digital age: Universal design for learning. Alexandria, VA: Association for Supervision and Curriculum Development. [Available Online http://www.cast.org/teachingeverystudent/ideas/tes/]

COURSE ASSIGNMENTS/PARTICIPATION:

Note: All of the assignments are explained in greater detail in separate documents that are provided in Blackboard. Please consult those documents for further description and grading rubrics. Some additional detail on the Final Project, as well as detail and the grading rubric for Participation, are provided after the Course Schedule in this syllabus.

Assignment 1: Fix the accessibility issues in a Word document..................................10 points

Assignment 2: Create captions for a YouTube video...10 points

Assignment 3: Evaluate the accessibility of an existing web site ....10 points

Assignment 4: Write a comprehensive set of organization-wide accessibility
and universal design policies...15 points

Assignment 5 (Final Project): Revise an existing lesson plan, training,
or online resources applying UDL & accessibility; ***OR,*** Develop training
or professional development on UDL & Accessibility for your organization ....40 points

Participation in weekly online discussions ....15 points
(2/week for weeks 1-7, 1 for Week 8)

Total points possible: 100

GRADING SCALE

Graduate Students (those taking EDIT/EDSE 526):
95-100% = A
90-94% = A-
87-89% = B+
83-86% = B
80-82% = B-
70-79% = C
< 70% = F

Undergraduate Students (those enrolled in EDIT 426):
95-100% = A
90-94% = A-
87-89% = B+
83-86% = B

80-82% = B-
77-79% = C+
74-76% = C
70-73% = C-
60-69% = D
< 60% = F

CLASS SCHEDULE

Week	Topics	Assignments
Week 1 June1	Intro to web accessibility and universal design, disability types, and assistive technologies Word accessibility	**Assignment 1** *Due June 7 by midnight* Fix the accessibility problems in a Word document given by the instructor (10 points) **Online discussion question** *Due Sunday (end of week) by midnight*
Week 2 June 8	Accessibility laws, policies, and protocols PDF accessibility Video accessibility: captions and audio descriptions	**Assignment 2** *Due June 14 by midnight* Add captions to a YouTube video (10 points) **Online discussion question** *Due Sunday (end of week) by midnight*
Week 3 June 15	Accessibility evaluation tools and techniques Online accessibility – • Websites (general) • Online learning tools (select one)	**Assignment 3** *Due June 21 by midnight* Evaluate the accessibility of one existing web site **OR** one common online learning tool (10 points) **Online discussion question** *Due Sunday (end of week) by midnight*

Week 4 June 22	Universal Design for Learning – Introduction and Overview Sample organizational policies on UDL & Accessibility	**Assignment 4** *Due June 28 by midnight* Write a comprehensive set of organization-wide accessibility & UDL policies for a your school or organization (15 points) **Online discussion question** *Due Sunday (end of week) by midnight*
Week 5 June 29	UDL – Implications for learner analysis, objectives, and assessment	**Assignment 5:** Work on Final Project Tasks for Week 5 (Consult the Assignment 5 document) **Online discussion question** *Due Sunday (end of week) by midnight*
Week 6 July 6 *This week will largely be devoted to you working at your own pace on your Assignment 5.*	UDL – multi-modal representations & implications for learning materials	**Assignment 5:** Work on Final Project Tasks for Week 6 **Online discussion question** *Due Sunday (end of week) by midnight*
Week 7 July 13 *This week will largely be devoted to you working at your own pace on your Assignment 5.*	UDL – Instructional flexibility; Systems barriers to implementation	**Assignment 5:** Work on Final Project Tasks for Week 7 **Online discussion question** *Due Sunday (end of week) by midnight*

| Week 8
July 20-23

This week will largely be devoted to you working at your own pace on your Assignment 5. | Accessibility evaluation tools and techniques | **Assignment 5**
Due July 21 by midnight
Revised lesson (option 1), revised training / resources (option 2), or training / professional development on UDL & accessibility (option 3)
(40 points)

Submit documents outlined in Assignment 5 table

Online discussion question
Due July 23 (last day of class) by midnight |

Final Project

For this project, you have a three options so that you can better align your effort in class with your actual work context. Consider what you could do that might useful / useable beyond the end of this class. Do not forget to inform me of which option you are choosing. The work for this assignment will be spread out across Weeks 5, 6 and 7 with specified tasks for you to complete each of those weeks. You must consult the *Assignment 5 Tasks & Rubrics document* for detail on the weekly tasks, deliverables, and assessment. Everything will be due **July 21 by midnight**.

Option 1	Option 2	Option 3
Revise Lesson Plan and Materials applying UDL and Accessibility	Revise Training or Online Resources applying UDL and Accessibility	Develop Training or Professional Development for a group in your school or company on UDL and Accessibility (about 1 hour of instruction; online or in-person)

Participation

I will post weekly discussion topics. You are expected to respond to the topic as well as to the posts of your fellow students.

Online commenting protocols:
- Postings should be evenly distributed during the discussion period (not concentrated all on one day or at the beginning and/or end of the period).
- Postings should be thoughtful and robust. A few sentences or a paragraph are insufficient – elaborate and give yourself time to read the questions and content, reflect, and post a thoughtful and meaningful response.

- Also give yourself time during the week to read others' posts and respond to your peers. Avoid postings that are limited to 'I agree' or 'great idea', etc. If you agree (or disagree) with a posting then say why you agree by supporting your statement with concepts from the readings or by bringing in a related example or experience.
- Address the questions as much as possible (don't let the discussion stray).
- Try to use quotes from the articles that support your postings. Include page numbers when you do that.
- Build on others responses to create threads.
- Bring in related prior knowledge (work experience, prior coursework, readings, etc.)
- Use proper etiquette (proper language, typing, etc.).

Criterion	Expected	Sufficient	Insufficient	Not Evident or Not Completed
Timely discussion contributions	2 postings well distributed throughout the discussion period	2 postings distributed throughout the discussion period	1 posting somewhat distributed throughout the discussion period	0-2 postings not distributed throughout the discussion period
Responsiveness to discussion and demonstration of knowledge and understanding gained from assigned reading	Very clear that readings were understood and incorporated well into responses	Readings were understood and incorporated into responses	Postings have questionable relationships to reading materials	Not evident that readings were understood and/or not incorporated into the discussion
Adherence to online commenting protocols (see above)	All online protocols adhered to	1 online protocol not adhered to	2-3 online protocols not adhered to	4 or more online protocols not adhered to
Points	15	12-14	8-11	7 or less

STUDENT EXPECTATIONS

- Students must adhere to the guidelines of the George Mason University Honor Code [See http://oai.gmu.edu/the-mason-honor-code-2/].

- 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/].

- 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 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.

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

CAMPUS RESOURCES

- 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/].

- 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 [See http://gse.gmu.edu/].