Welcome!

https://youtu.be/TdCk8hi9ju4
Reminder
If you did not complete the Pre-Questionnaire, please take a moment to do this now (UHMC participant login is required).

Course Schedule

View the Course Schedule for important dates. The schedule can also be accessed on the Home page in Laulima. All accesses are open, so you may complete any or all of them if you wish. The schedule suggests start dates for each course section. BE MINDFUL OF THE DUE DATES, since peer reviews rely on completion of assignments.

Peer Reviews:

- Introduction
- Access 2: Color
- Access 4: Links
- Conclusion

Introduction to the Mission

What does “accessibility” mean?
According to the DOJ and The Department of Education’s Office for Civil Rights (OCR)

“Accessible’ means a person with a disability is afforded the opportunity to acquire the same information, engage in the same interactions, and enjoy the same services as a person without a disability in an equally effective and equally integrated manner, with substantially equivalent ease of use. The person with a disability must be able to obtain the information as fully, equally and independently as a person without a disability. Although this might not result in identical ease of use compared to that of persons without disabilities, it still must ensure equal opportunity to the educational benefits and opportunities afforded by the technology and equal treatment in the use of such technology.”

Source: http://bit.ly/1wjpvgT

Our Responsibility

According to the Department of Justice (DOJ)

“...the University must implement a policy that requires the deployment of accessible technology and course content in the University setting. To that end, the University shall conduct a review of the accessibility of its technology and instructional materials and shall ensure that . . . all technology, including websites, instructional materials and online courses, and other electronic and information
Experiences of Students with Disabilities

https://youtu.be/BEFgnYktC7U

GO TO THE COURSE
Disability Services is trying to build a community that works together. Introduce yourselves with a video using Flipgrid (The password is on the course site in Laulima). Use your real name, since the participants in this enrichment course will be the only ones able to view the introduction videos. Keep it short—under 30 seconds. State your name and your locus of control. Add a fun fact: your favorite food, favorite joke, an item on your bucket list, or anything else that comes to mind!

Instructions:

1. View this Flipgrid video tutorial.
2. Review at least 1 peer video and “heart” it!

Alone we can do so little, together we can do so much.

by Helen Keller
Course Logistics

As mentioned in the "Welcome" video, this course is designed with an understanding of your limited resource—time. Yet, there are many important disability concepts that need your attention. As a result, this enrichment is also designed to engage you in effective and efficient learning.

Throughout this enrichment course, you will focus on how the challenges of students with disabilities can be appropriately remedied for the achievement of equity in regards to digital content. You will walk through accesses (mini-modules) that include short videos, narratives, quizzes, and activities. You will be presented with examples and nonexamples of digital content and create accessible, digital content, too!

This enrichment does not focus on grades, but instead, promotes a community. You will share your work, comments, reflections, and resources.

Additionally, the components of this enrichment intend to model accessibility. KEYS supply information that instructs how to create access for digital content that is not covered in this enrichment. EXTRA contains information to be used as references and is not required for completion.

Walk through the course sections sequentially, since some activities build upon one another. Please try to complete all of the activities by the assigned date :). You will be asked to review this project at the end. Happy trails!

KEY: Creating an accessible infographic

Course Sections

Introduction
We are trying to build a community that works together. Introduce yourself with a video!

Access 1: Videos
Videos are becoming a popular method of communication, helps students become engaged with their learning, and is appropriate for diverse learning styles. What needs to occur to make videos accessible for everyone?

Access 2: Color
Color is used as ways to convey information, indicate an action, prompt a response, or distinguish a visual element. The Web in black and white would be accessible and very boring! How can color be used to suit the needs of everyone?
Access 3: Images
Images help with comprehension for everyone except the blind. What can be done to help the blind “see” an image?

Access 4: Links
Because links are basic to the functionality of digital content, inaccessible links are one of the most severe barriers to overall accessibility. Find out why, and learn what makes them accessible.

Access 5: PDFs
What is a PDF, and what makes it accessible? Let’s answer these questions and take a look at some of the criteria for accessible PDFs.

Conclusion
Is the mission accomplished?

GO TO INTRODUCTION
Introduction to Videos

Videos are becoming a popular method of communication. Videos help students become engaged with their learning, and videos are appropriate for diverse learning styles. What needs to occur to make videos accessible for everyone?

Vocabulary and Definitions

Access 1.1

View a chopped video, renamed Read My Lips, and take a quiz. A perfect score is equal to 299 points. PLEASE TURN OFF YOUR AUDIO to create the desired effect. After you are done,
you can compare your experience with an accessible version of the video, *Deaf in the Military*. 

Access 1.2

View a video lecture to learn about creating accessible video and audio.

Access 1.3

View a video lecture to learn about captions.

Access 1.4

https://youtu.be/f3xBEto9JCA

Click to view Introduction to Accessible Videos. http://youtu.be/ebwecPFMZ5Y

Click to learn about captions.
Creating Accessible Videos

“For the things we have to learn before we can do them, we learn by doing them.”
― Aristotle, *The Nicomachean Ethics*

Start the creation of an accessible video by writing a transcript for your introduction video that was made using Flipgrid. Submit your transcript under Discussions in Laulima.

Access 1.5

Also under Discussions, respond to the following, and number your responses accordingly:

1. How did you score on the quiz in “Read My Lips” (rhetorical question)? Identify 3 things that make the video inaccessible.

2. Have you any concerns about creating or sharing accessible videos for your course? If so, what are they?

3. Does a transcript alone make a video accessible? Why or why not?

Research and share at least 1 pertinent resource in Discussions, if you have not done so, yet.

(KEYS FOR ACCESSIBILITY)

(EXTRA RESOURCES)
Introduction to Color

The Web in black and white would be accessible, but very boring! Color is used as a way to convey information, indicate an action, prompt a response, or distinguish a visual element. How can color be used to suit the needs of everyone?

Access 2.1

Take a pretest about color.

Directions:

Choose the best answer for each of the 15 questions.

- Only one answer is permitted.
- You may go back and change your answers.
- Click to submit your answers at the end of the quiz.
- Review your answers for explanations.
- A perfect score = 100%.

Access 2.2

Importance of Accessible Color

Choosing accessible colors for digital content affects all users, not just those with vision impairments. It’s a basic usability issue. The only people for whom the color choices don’t matter are those using screen readers.

A screen reader is a software application that attempts to identify and interpret what is being displayed on the screen, or more accurately, sent to standard output, whether a video monitor is present or not. This interpretation is then re-presented to the user with text-to-speech, sound icons, or a Braille output device. A screen reader is a form of assistive technology (AT) and is potentially useful to people who are blind, visually impaired, illiterate, or learning disabled—often in combination with other AT such as screen magnifiers.

Color Standards
The Web Content Accessibility Guidelines (WCAG) 2.0, drafted by the World Wide Web Consortium (W3C), provides recommended standards for contrast between foreground and background colors—between your text and the background behind it. Complying with these standards will ensure that your content is easily readable by virtually all users.

The minimum recommended contrast ratio is 4.5:1. This will meet the WCAG "AA" level of compliance. The enhanced contrast ratio is 7:1. This will meet the WCAG "AAA" level of compliance. In studies, the 4.5:1 ratio was found to be readable by people with mild to moderate vision impairments. The 7:1 ratio was found to be readable by people with more severe loss of vision or color contrast sensitivity, up to 20/80 vision. People with vision loss beyond that typically use adaptive software to enlarge the text or enhance the contrast. The 7:1 ratio should target all users whose vision doesn't require adaptive techniques. A minimum ratio of 3:1 is recommended for large text, 18 pt. or greater, and for bold text, 14 pt. or greater.

<table>
<thead>
<tr>
<th>Text</th>
<th>WCAG Standard</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>AA (minimum)</td>
<td>4.5:1</td>
</tr>
<tr>
<td>Regular</td>
<td>AAA (enhanced)</td>
<td>7:1</td>
</tr>
<tr>
<td>18 pt. or 14 pt. bold</td>
<td>AA</td>
<td>3:1</td>
</tr>
<tr>
<td>Incidental</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Logotype</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Exceptions

- Incidental: Text, or images of text, that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains a significant amount of other visual content, have no contrast requirement.

- Logotypes: Text that is part of a logo or brand name also has no minimum contrast requirement.

Hue vs. Value

Pairing different hues does not necessarily create sufficient color contrast. When you strip out the color information and compare the values, there may not be much difference. Pairing different values creates contrast.

DO

The maximum contrast is black/white, but other options are available such as navy/white, cream/dark brown, yellow/black and similar color schemes. Generally speaking, a color scheme is considered legible if it can be read in grayscale/black and white mode.

DON'T DO

Orange

Orange should ONLY be used with large text and as a highlight. Because orange is neither very dark or very light, it is difficult to contrast it with another color.

Why Red/Green Can Be Bad

This particular combination can be problematic because many color deficient viewers cannot distinguish these two colors. They are also both about the same level of darkness which is problematic for contrast.

Why Red/Black Can Be Bad

Some color blind users are lacking the capability to detect the lower color wave frequencies associated with red. For these users, red color waves read as "no signal", or "black". These users confuse red and black, so this contrast should be avoided whenever possible. Red and white is legible, but indistinguishable from black and white.

Too Vivid
Placing areas of brightly colored hues together can be hard for users with color vision to read. Bright colors cause an afterimage effect. With only one bright color, the after image is usually not bothersome, but with two bright colors together, the afterimages interfere with one another, causing a “visual vibration.” This can be reduced by placing a neutral color between the two areas of bright colors or by making one of the colors a pastel or dark shade.

**Too Much Texture**

A slide or background with a texture (including a gradient) can also interfere with legibility. The more subtle the background, the more likely it is that the text will be legible.

**Color as Information**

The guidelines also state that you should not rely on color alone to convey important information or prompt an action. There should be another indicator such as icons to accompany color coding, or an underline on linked text so that people who cannot easily distinguish colors will be able to understand and use your content.

**Access 2.3**

View the following videos to learn more about accessible color:

1. LSNTAP’s Web Accessibility series 4 of 8: Color contrast (1:17)
2. Web Accessibility 101: Effective Color Contrast (1:59)

**Access 2.4**

Take a post-test about color.

**Directions:**

Choose the best answer for each of the 15 questions.

- Only one answer is permitted.
- You may go back and change your answers.
- Click to submit your answers at the end of the quiz.
- Review your answers for explanations.
- A perfect score = 100%.

**Access 2.5**

**Creating Accessible Color**

For accesses on color, images, and links, you will create a “poster” that promotes accessible, digital content using 1 Google slide. You are not limited to the topics that are covered in this enrichment course. Details for steps follow.

1. Write a catchy slogan for your poster, and apply accessible color and contrast.
2. Use the color analyzer to test for accessibility.
3. Remember to title your slide.
4. Share the link to your slide under the Discussions tool in Laulima.
5. Respond to at least 1 peer’s slide.

How do I get a Google slide?

Access your Google Drive from your UH email. Look for the 9 small squares in a square and click on it. Under “New” on the left hand side, select Google Slide from the drop down menu.

How do I share the slide?

On the top, right hand corner of the Google slide, select the "share" button. Set your settings to “People with the link at the University of Hawaii can view.” Click on ”Get the shareable link.” Copy and paste the link to Laulima.

Color Analyzer

- Download the color analyzer for Windows or Mac. Note: Javascript must be enabled and supported.
- How to Use the Color Analyzer: Simply enter a foreground and background color by using the eyedropper. You can also check contrast results for color blindness by checking the box.
- Optional: Color contrast analyzer tool demo from Paciello. (2:42)

Peer Response

- If someone has already responded to a post, then respond to a post that has not received a response.
- Keep it short.
- Keep it positive.
- Asking questions is great!

Contest

You will eventually vote for the best slide (at the end of Access 4: Links). The winning slide MUST have accessible color, images, links, and that extra something! The winner will be awarded a prize, an item from Thirty-One!

Research and share at least 1 pertinent resource in Discussions, if you have not done so, yet.
Introduction to Images

Images help with comprehension for everyone except the blind. What can be done to help the blind "see" an image? What makes an image accessible? What is alternative text?

Access 3.1

View the slideshow on accessible images to discover the answers to these questions and more. The presentation contains 2 videos, examples and non-examples of accessible images.

Access 3.2

Creating Accessible Images

Address your responses for the following, and please number your answers accordingly.

1. For each of the non-examples in this access (Slide 19, 20, 25, 26, and 27), write an appropriate alt-text and reference the slide number.

2. Creating Accessible Images – Find 2 images for the Google slide that you created for the access on color, and add alt-text.

• Select 2 images to enhance your slogan.
• Supply alt-text for each image. The alt-text field for images on a Google slide can be
found by > select your image > go to Format > scroll down to alt text. Fill the appropriate field.

- Share your updated slide under the appropriate assignment in Laulima.

Research and share at least 1 pertinent resource in Discussions, if you have not done so, yet.

KEYS FOR ACCESSIBILITY

Click edit button to change this text.
Introduction to Links

Because links are basic to the functionality of digital content, inaccessible links are one of the most severe barriers to overall accessibility. Find out why, and learn what makes them accessible.

Access 4.1

Your mission is to define the rules that make links accessible through examples and non-examples.

Access 4.2

Creating Accessible Links

1. Review at least 2 websites where viewers can learn more about your poster’s topic. Link the URLs of the websites to your slide. Remember to apply the rules for creating accessible links.
2. Share the link of your updated slide under the appropriate assignment in Laulima.
3. Respond to at least 1 peer’s slide.
4. Take the poll to choose who has the best poster! Disability Services will select and announce the winner in our Discussion site.

Research and share at least 1 pertinent resource in Discussions, if you have not done so, yet.

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http://www.slideshare.net/cokuda/access-4-links-42633951
Photo by Saad Faruque via Flickr. (CC BY-SA 2.0)
Introduction to Accessible PDFs

What is a PDF, and what makes it accessible? Let’s answer these questions and take a look at some of the criteria for accessible PDFs.

Access 5.1

View the slide presentation on accessible PDFs.

Access 5.2

The accessibility of a PDF depends on the accessibility of the original document. Unless you have expensive software to create accessible PDFs, you can create accessible PDFs by Creating Accessible Word Documents. There is no assignment for this access in exchange for an assignment in the Conclusion section.

Examples of Students’ Issues with PDFs at UHMC

Student A

Student A is taking a course that uses an online textbook from a well-established publisher. The non-traditional student is not blind nor deaf, but is challenged with low vision. The student uses Kurzweil 3000, a literacy tool, for the large font and simultaneous text/audio features to assist with reading. The online chapters are not accessible with Kurzweil 3000. The chapters can be downloaded and
converted to Kurzweil, but the quality is poor—even for a sighted user. The student finds the blurred text frustrating and prints the downloaded PDFs. The student then reads the printed pages with a lighted magnifier and makes notes with a black Sharpie pen. During tests, the papers are organized and spread out over a large table, and time is spent searching for answers. Fortunately, the student has excellent compensatory skills and does not complain.

Fix: Ask questions about accessible features of online books before purchases are made, or use hard copies. Disability Services is able to attain digital copies of most textbooks from a consortium of publishers. These files can be converted to alternative formats—Kurzweil, Word, or MP3.

Student B

A student uses Kurzweil 3000 to assist with reading, but the scanned images present several issues: the pages have darkened backgrounds, some pages are sideways, the page margins vary which can be distracting, some have 2 pages on 1 page that is divided by a blackened gutter, is not visually appealing, and is unrecognizable by an OCR process. The student struggles to find ways to read the text, and the only way to do this is by reading it without any assistive technology, or retype the document.

Fix: Look for resources found on the Web, use a scanner or software with an OCR process, or contact Disability Services for assistance.

Student C

Accessible PDFs are beneficial for sighted readers, too. Student C has dyslexia and other learning disabilities. The student prepares course materials far in advance to ensure accessibility, since it takes a lot of time to do this. One study practice is to transfer text from a PDF to a Word document so that the text can be manipulated—bolded, highlighted indifferent colors, reorganized, etc. PDFs that are images prohibit this practice. The student is left to find other means for studying the course material.

These are only a few examples that students may be ashamed to share. Know that there are many who try and eventually give up.

Research and share at least 1 pertinent resource in Discussions, if you have not done so, yet.
Where do we go from here?

Double-O-Agents, throughout this enrichment course, you have created accessible, digital content! YOU DID IT!

We know what we are required to do, but how do we uphold our legal responsibilities at UHMC? How do we automatically create accessible, digital content and reach/teach EVERYONE in the online environment?

The Western Association of Schools and Colleges (WASC) identifies Good Practices for Electronically Offered Degree and Certificate Programs. The United States Distance Learning Association (USDLA) also takes a look at “good practices” and teacher preparation in Distance Learning: Enabling the Race to the Top. Is the adoption of Universal Design for Learning (UDL) for us?

Conclusion 1: Discussion

Please share your thoughts about accessibility at UHMC by answering any of the questions in the second paragraph above or by commenting on any resource on the website under Discussions in Laulima. Optional: Reply to at least 1 peer's post, if possible.

Research and share at least 1 pertinent resource in Discussions, if you have not done so, yet.

Conclusion 2: A Point of View for the Future
This concludes the enrichment for Mission Accessible, but the mission for achieving accessibility for students with disabilities is ongoing. However, you have completed a mission by participating in this project—CONGRATULATIONS!

Know that if you feel overwhelmed, we understand. The creation of this enrichment project while tending to accessibility features required copious amounts of time. Start out with one aspect, and build from there. Waiting until you have a student with a disability in your course who will be impacted by inaccessible, digital content is too late. Be sure to reach out to Disability Services for any assistance. A hui hou!