



Welcome to Accessibility @ UCI

This presentation is an overview of the best practices in electronic accessibility when developing an online course.



Navigating electronic media can be difficult —sometimes impossible — for people with disabilities.



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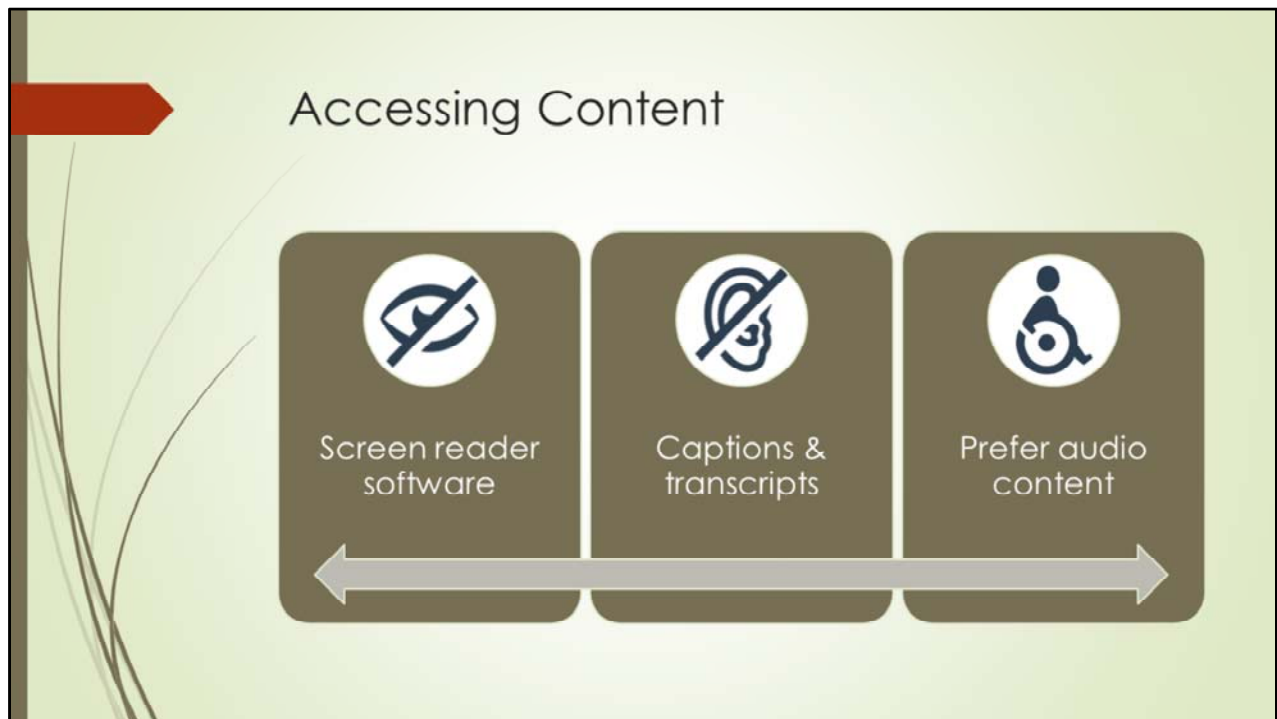
The University of California seeks to promote the sharing of best-practices and tools related to accessibility among the campuses, and build collaborative relationships with other institutions to provide electronic resources for all individuals particularly those with disabilities.

## Content Development



The audience for this presentation is anyone developing content (text, images, video, etc.) for online courses, publications or systems who must ensure that all the elements are provided to make the content accessible to individuals with disabilities, including visually and hearing impaired people.

Image: Three men and one woman working on developing content for an online course.



When developing an online course content it is important to keep in mind how people may access content.

- Blind individuals often use screen readers - software that uses audio output to interpret and "read" the content out loud to the user
- Hearing impaired individuals may depend on captions and transcripts to access audio
- Individuals with motor control impairments may prefer to listen to content rather than use a mouse or keyboard

In this short presentation, we will go over some guiding best practices when planning an online course.

Images:

- Icon #1: Sight impaired/blind = screen reader software
- Icon #2: Hearing impaired = captions & transcripts
- Icon #3: Motor control impairment = prefer audio content

## Provide alternative text for images



- Seal of the University of California
- ``

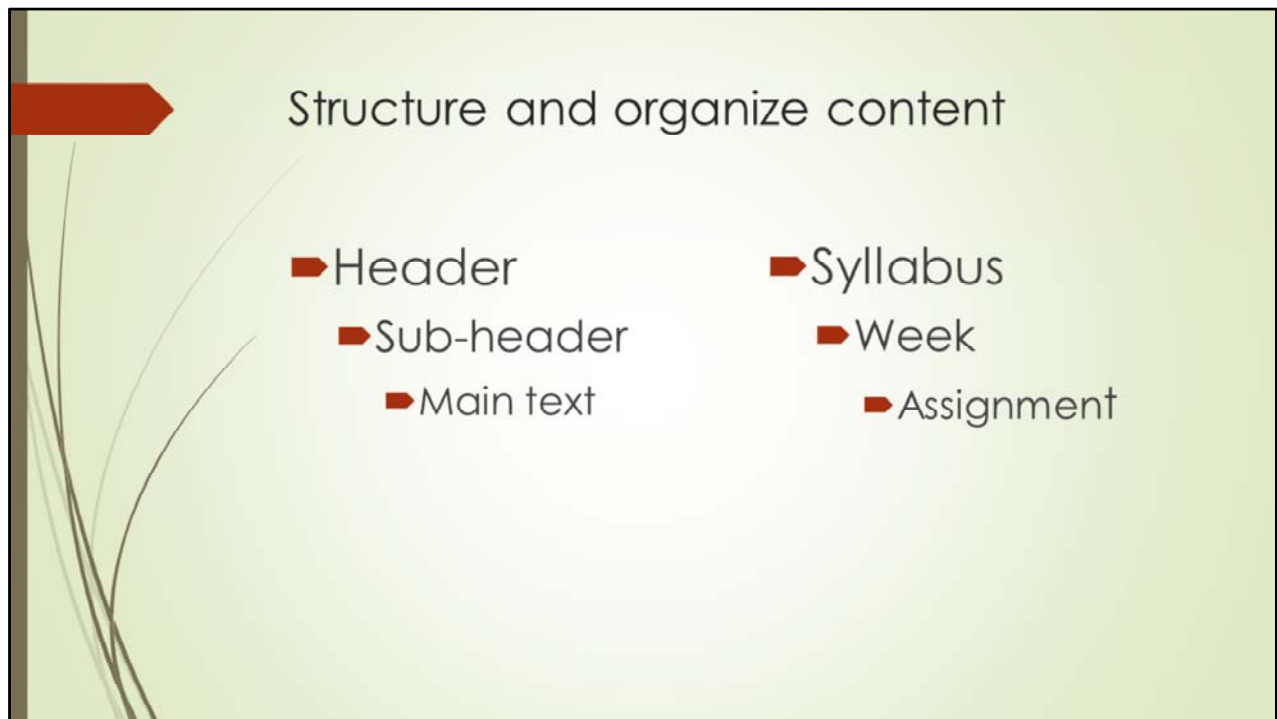
When working with pictures, it is important to develop alternative text for all meaningful images. "Alternative text" is not a caption.

[Appropriate alternate text](#) is a short description of an image that a screen reader can access and "read" to the user.

Without alt text, the visually disabled user will miss the image and its meaning. Describe in the text why the image is significant and what it demonstrates.

The same recommendation of alternative text descriptions goes for graphs and charts. Be sure the caption explains the purpose, and provide a description of why the graph or chart is important and what it conveys

Image: Seal of the University of California with html code for alternative text.



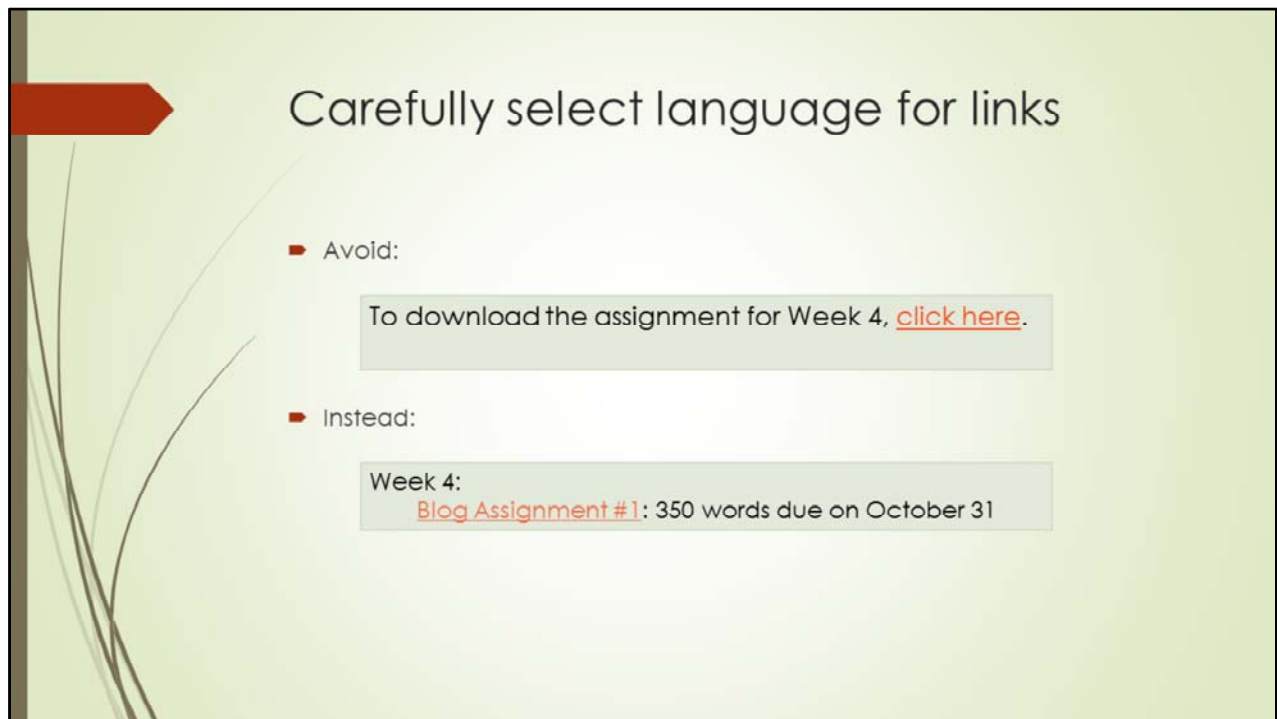
Organize and structure the content to help users navigate the page, determine where they are, and find the content they want.

Use headings appropriately. Many people who use adaptive technology to access web pages by navigating headings. Effective use of headings also optimizes indexing and searching with search engine.

Best practice recommends using "Heading 1/2/3" paragraph styles, instead of different font sizes, to indicate structure and hierarchy.

Image: Bullet points for 3 levels of heading with an example of structuring

- H1: Syllabus
- H2: Week
- H3: Assignment



[When creating online content, clearly identify the language to be used for links.](#)

Accessing links and making sense of them is critical to disabled users.

The content developer needs to control the language used for links and not leave it up to the technical implementation team.

Use language that describes where the link goes.

For example, rather than "click here," use descriptive text for links, such as "Blog Assignment #1."

This allows the purpose of each link to be determined from the link text alone.

Image: Two (2) text box images showing a non-example and an example.

- Avoid:  
To download the assignment for Week 4, [click here](#).
- Instead:  
Week 4: [Blog Assignment #1](#): 350 words due on October 31



## Provide video transcripts & captions



Example [CC BY-SA 3.0](#) Hinweise zur Weiternutzung

When developing any online video or audio content, at minimum, a transcript must be available for hearing impaired individuals.

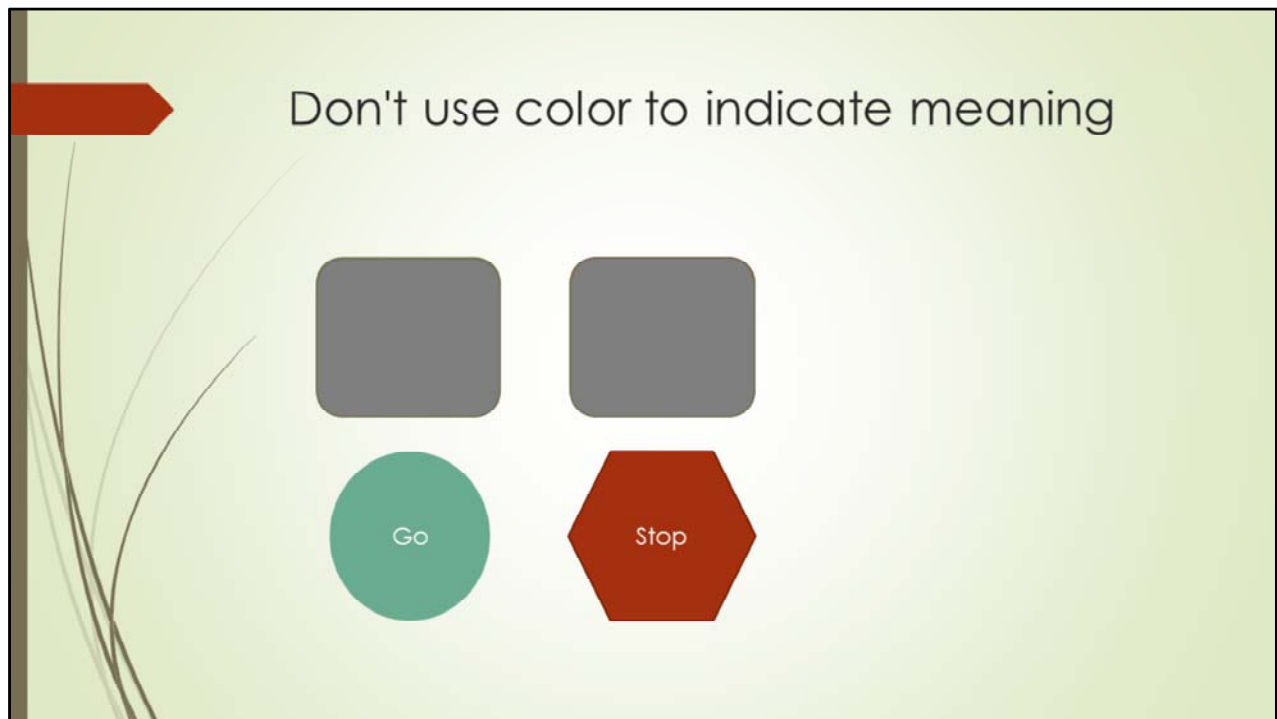
This text content can be used to create a synchronized text transcript, also called captions. Captioning ensures that deaf or hearing impaired individuals can use the video.

Captions also benefit non-native speakers, users with audio disabled or viewers watching a video with poor quality audio.

Image: <http://de.wikipedia.org/wiki/Untertitel#mediaviewer/File:Subtitle-Example.png>

Two animated characters walking in an online video. Yellow caption says:

- Let me help you!
- Thank you.



A colorblind person may not be able to distinguish the buttons

In a classic example, a green button represents "go" and a red button represents "stop."

However, a colorblind individual may not be able to distinguish the buttons, and a screen reader can't interpret the colors.

To remedy this situation, use shapes or text to distinguish buttons, and provide alt text that can be read by the screen reader.

Images:

Two rectangular buttons colored green for go and red for stop.

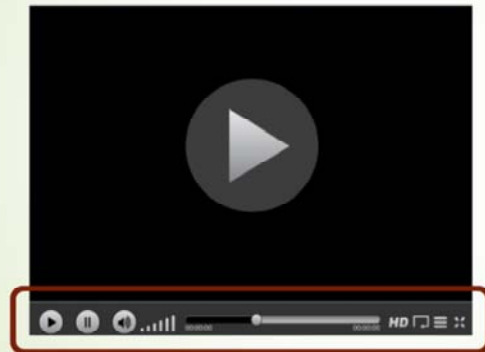
Animation shows grey rectangular buttons that a colorblind or screen reader would not be able to distinguish.

Text is added to the buttons to indicate "Go" and "Stop" for a colorblind or screen reader to distinguish.

Finally as a further example, shapes are used to distinguish the buttons:

- Green circle button with "Go" text
- Red hexagon button with "Stop" text

## Plan for accommodating needs with timed content



In planning online content, some disabled users may need more time to navigate and access the material.

For elements of the website that include a timed component like a short flash animation or a video, users must be provided with a way of manipulating the amount of time provided, such as turning on/off the time limit before encountering it, or extending the time period when time is up.

In this video example, the video controller is made available to users to pause, stop and review content.

Image: Online video screen with video controller available

## Create tables for screen readers

Course Assignments		
Assignment	Description	Due Date
Blog post 1	350 word blog post	October 31
Blog post 2	350 word blog post	November 7

```
<table>
<caption>Course Assignments</caption>
<tr>
<th scope="col">Assignment</th>
<th scope="col">Description</th>
<th scope="col">Due Date</th>
</tr>
<tr>
<th scope="row">Blog post 1</th>
<td>350 word blog post</td>
<td>October 31</td>
</tr>
<tr>
<th scope="row">Blog post 2</th>
<td>350 word blog post</td>
<td>November 7</td>
</tr>
</table>
```

Because screen readers read a Web page from top to bottom and left to right, information placed in tables is often very difficult to understand.

If you use the proper HTML markup for data tables, screen reader users will be able to navigate through the table much more easily.

### Solutions

Designate row and column headers using the <th> tag.

Associate the data cells with the appropriate headers.

Use proportional sizing, rather than absolute sizing.


Provide names or titles for data tables using the <caption> tag.

Provide summaries using the summary attribute.

Avoid spanned rows or columns

Avoid tables with more than two levels of row and/or column headers.

Images: A course assignment table delineating assignment, description and due dates with corresponding html code to document descriptions.



## Write concise and logical text

- Navigating websites can be difficult —sometimes impossible— for people with disabilities. The University of California seeks to promote the sharing of best-practices and tools related to accessibility among the campuses, and build collaborative relationships with other institutions to provide electronic resources for all individuals particularly those with disabilities.
- **INSTEAD:**  
The University of California is committed to providing an electronic environment that is accessible to everyone, including individuals with disabilities.

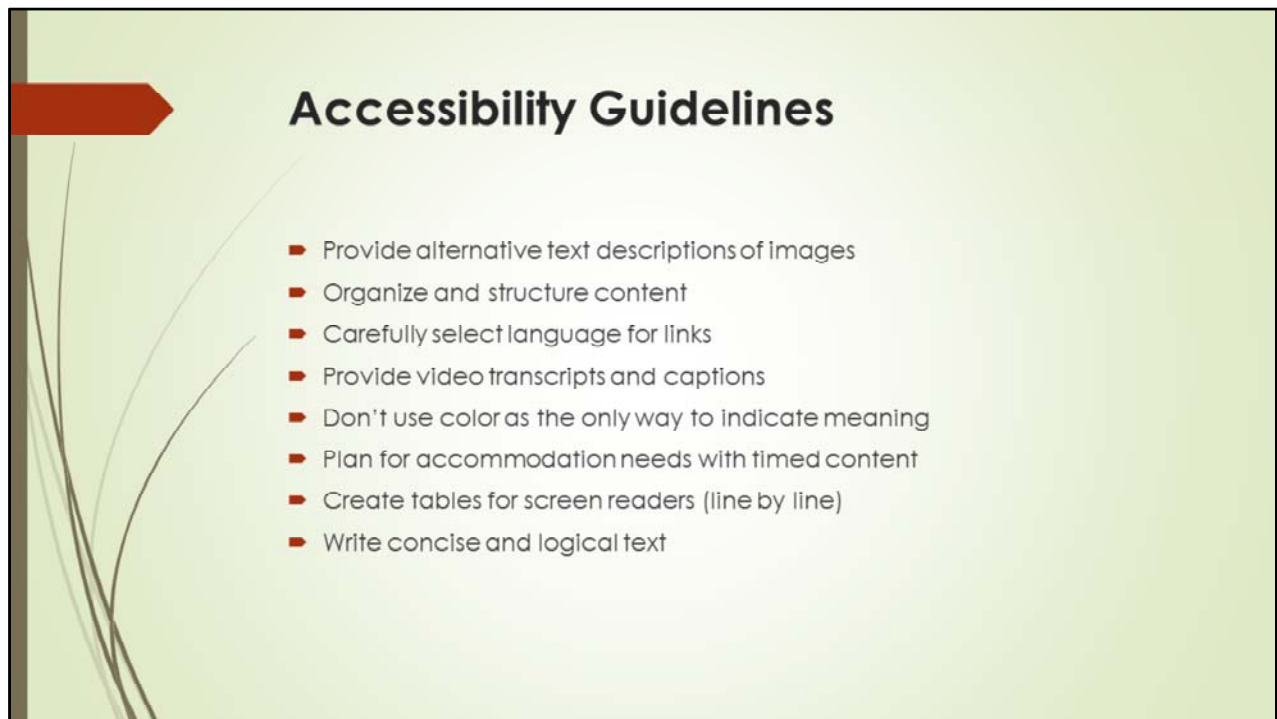
Studies have shown that most users do not read long passages on the Web; instead they scan the pages, trying to pick out a few sentences or even parts of sentences to get the information they want.

Long texts are particularly challenging for screen readers, which cannot scan large blocks of text - instead these applications have to read line by line.  
Remember that if the text is short and to the point, you can save screen reader users time and frustration:

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**INSTEAD:**

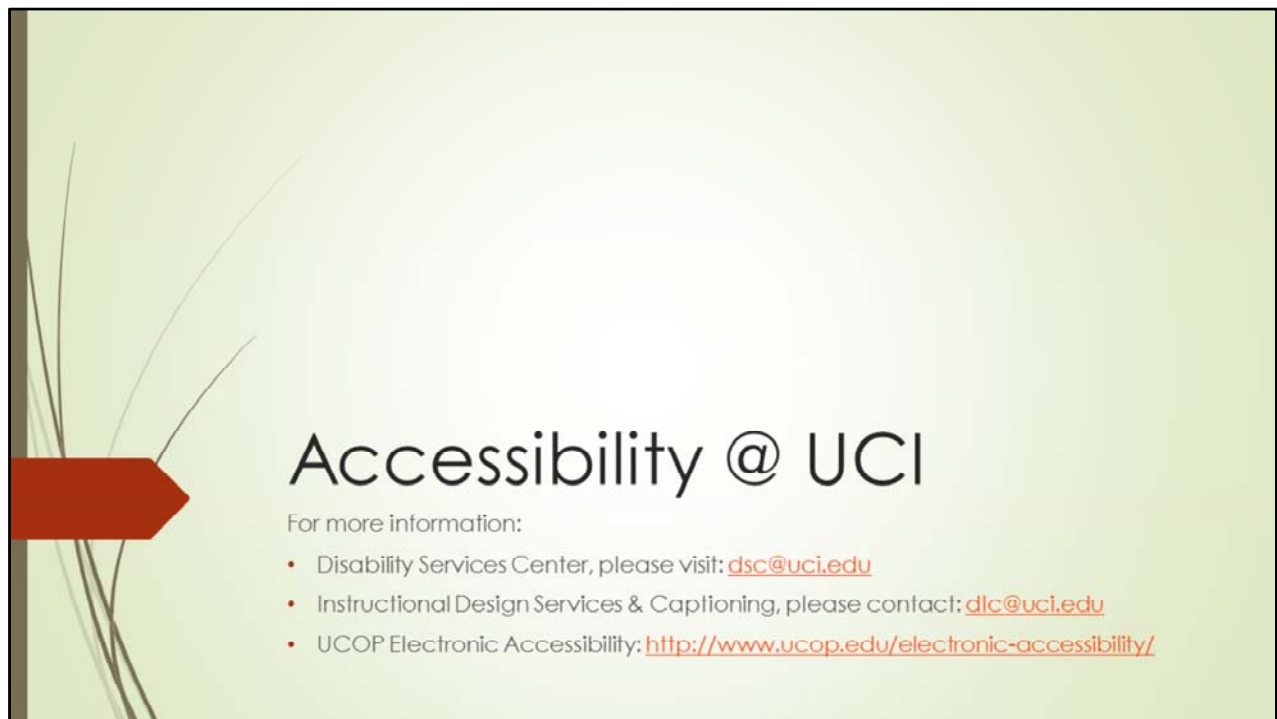
The University of California is committed to providing an electronic environment that is accessible to everyone, including individuals with disabilities.



In closing, The University of California, Irvine, is committed to providing an electronic environment that is accessible to everyone, including individuals with disabilities. Please note that this short presentation is not a complete set of Accessibility Guidelines but a starting point.

- Provide alternative text descriptions of all images
- Organize and structure the content to help users navigate content
- Carefully select the language to be used for links
- Provide audio/video transcripts and captions
- Don't use color as the only way to indicate meaning
- Pre-plan for accommodation needs with timed content
- Create tables that can be understood by screen readers (line by line)
- Write concise and logical text

For your convenience, an Accessibility Guideline Handout PDF is also available in the "Online Teaching Experience" that will list additional resources that are available to you.



Thank you for watching Accessibility @ UCI.

- For more information about UCI Disability Services, please visit: <http://disability.uci.edu/>
- For more information about Instructional Design Services, please contact the Distance Learning Center: [dlc@uci.edu](mailto:dlc@uci.edu)
- Finally, this presentation and corresponding materials are adapted from Electronic Accessibility resources available on the University of California, Office of the President website: <http://www.ucop.edu/electronic-accessibility/>