

The Anatomy of an Accessible Page

In Canvas, headings start with Heading 2 like below;
in other programs like Word, headings start with Heading 1.

Heading 2 → Syllabus

Heading 3 → **DL 101 - Introduction to Online Learning**

Heading 4 → **Course Information:**


Format lists as proper lists

- **Course Title:** Introduction to Online Learning
- **CRN:** 12345
- **Credits:** 3
- **Term:** Winter 2014

Add Alternative (Alt) text to images

Heading 4 → **Instructor Information:**

Hello! My name is John Doe, and I'll be your instructor for this course. I've taught this course online for the past two years. Each time I teach it, I learn something new.



John Doe
Instructor

Heading 4 → **Assignments/Assessments:**

Heading 5 → **Grading Scale**

Table Column Header

Grade	Grading Scale by Points	Grading Scale by Percentages
A	202 - 225 +	90 - 100%
B	180 - 201	80 - 89%
C (or P)	157 - 179	70 - 79%
D	135 - 156	60 - 69%
F (or NP)	< 134	< 59%

Table Row Header

Heading 5 → **Late Work & Make-up Policy**

Assignments must be completed on time in order to earn full credit.
(Late assignments will earn 50% credit.)

Sufficient Color Contrast

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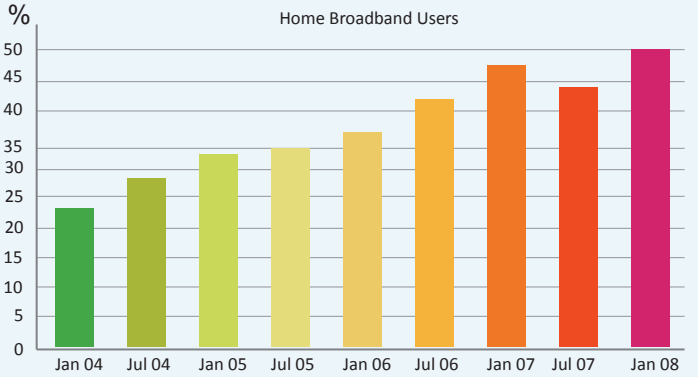
Write meaningful link texts

Special Accommodations:

Students who experience disability-related barriers should contact [LASC's DSPS Office](#). If students elect to use approved academic adjustments, they must provide in advance formal notification from DSPS to the instructor.

DL 101 - Online Learning Best Practices

Best Practices when using complex graphics:



Date	Percentage (%)
Jan 04	22
Jul 04	28
Jan 05	33
Jul 05	34
Jan 06	37
Jul 06	42
Jan 07	47
Jul 07	43
Jan 08	48








This graph summarizes the growth using home broadband during the period of January 2004 to 2008. The percentage increased from 22% in 2004 to 48% in 2008.

When using complex images, include Alt text as you would for any other image but also include additional description as a caption. If more description is needed, include it in the content of the page.

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General Web Accessibility Guidelines


Component	Guideline	Why Is This Important?
 Headings	Use properly formatted headings to structure a page.	Headings help to organize content, making it easier for everyone to read. Headings are also a primary way for people using screen reading software to navigate a page of text.
 Lists	Format lists as proper lists.	Formatting is conveyed to assistive technologies and mobile devices so they can present information as it's meant to be presented. Properly formatted documents are more understandable and accessible.
 Links	Write meaningful link text.	Links embedded in text should describe the link's destination. This helps all users navigate more efficiently, especially screen reader users.
 Tables	Create tables with column and/or row headers, and ensure a proper reading order.	<ul style="list-style-type: none"> ▪ Why Column Headers in a Data Table are Important Using table headers is important to conveying tabular data accurately. ▪ Why the Reading Order in a Table is Important Screen readers read tables from left to right, top to bottom, one cell at a time (& only once). If cells are split or merged, it could throw the reading order off which may make the table difficult to comprehend by users who are blind and using a screen reader to navigate.
 Color	<ul style="list-style-type: none"> ▪ Use sufficient color contrast. ▪ Don't use color alone to convey meaning. 	Without sufficient color contrast between font and background, people who are color blind and low vision will not benefit from the information. And using color alone to convey meaning will leave those who are color blind or blind unable to interpret the meaning.
 Keyboard	Ensure that any action that uses a mouse can also be completed using only the keyboard.	Mobility and visual disabilities often make using a mouse impossible or ineffective. If content is not keyboard accessible, it will limit who can learn from the content.
 Images	Provide alternative (Alt) text descriptions for images.	Alt text is read by a screen reader. It should adequately describe what is being displayed and why it's important. This allows screen reader users to benefit from the information being conveyed by the image, even if they cannot see it.



General Web Accessibility Guidelines



Component	Guideline	Why Is This Important?
 Navigation	Design clear and consistent navigation.	Clear and consistent navigation in your course will allow students to focus on your content rather than on how to find it.
 Blinking	Eliminate or limit blinking / flashing content to 3 seconds.	Blinking content is distracting, and it can cause seizures to occur in people with a photosensitive disorder.
 Forms	<ul style="list-style-type: none"> Label form fields and buttons clearly. Ensure a proper logical reading order in a form. 	<ul style="list-style-type: none"> ▪ Why the reading order of a form is important Using the tab key, your cursor should follow through the form in the same order it is intended to be completed. This benefits users who cannot use a mouse. ▪ Why labeling buttons and form fields is important A screen reader will identify the button or form field by reading the label. The label should adequately describe the button's action, and the form field label should indicate what information should be filled in to the form field.
 Video	Whenever possible, provide a transcript of audio and use captioned videos.	Video captions benefit many viewers. Captions are essential for those who are deaf and hard of hearing, but they also aid in comprehension for non-native English speakers, those who are unfamiliar with vocabulary, and viewers with some learning disabilities or in a noisy environment.
 Audio		Audio transcripts benefit many students. They are essential for those who are deaf or hard of hearing, but they also assist anyone who would like to read or search the transcript.
 Software	Require only accessible software & applications.	Inaccessible software and applications will shut students with disabilities out.
 Math & Science	Write math and science equations accessibly.	For MS Word and PPT documents, use the MathType plugin.

Component	Accessibility Guideline	How to Make it Accessible
Headings	<ul style="list-style-type: none"> Properly format headings. Use headings in the correct order. 	<ul style="list-style-type: none"> Highlight the text and select the Heading # from the Paragraph drop-down menu on the tool bar. Canvas starts with Heading 2, and there should be only one Heading 2 per page. But there can be multiple h3, h4, etc. DO NOT skip heading levels.
Images	<ul style="list-style-type: none"> Add alternative (Alt) text to images. 	<ol style="list-style-type: none"> Place the cursor where you want to insert an image, and click the Embed image icon from the toolbar. The Add a File window will open. Select a method for inserting an image (URL, Canvas file, or Flickr). Describe the purpose of the image in the Alt Text field. Click Update.
Lists	<ul style="list-style-type: none"> Format a list as a list using Ordered or Unordered lists. 	<ol style="list-style-type: none"> Select the content you want to make into a list. From the toolbar, click the Bullet list icon if the order doesn't matter. Select Numbered list from the drop-down menu (next to the bulleted list icon) if the order does matter.
Links	<ul style="list-style-type: none"> Write meaningful link text that indicates the link's destination. 	<ol style="list-style-type: none"> Highlight meaningful text for the link (ex. Los Angeles Southwest College) From the toolbar, click on the Link to URL icon  Type or copy the URL (ex: www.lasc.edu) Click the Insert Link button.

Component	Best Practices	How to Make it Accessible
Tables	<ul style="list-style-type: none"> Indicate column (or row) headers in data tables. 	<ol style="list-style-type: none"> Select the cells to be marked up as a row or column header. Click on the drop-down menu next to the Table icon in the toolbar. Choose Cell then Cell Properties. In the Cell type field, click on the drop-down list and select Header Cell. Click OK button.
	<ul style="list-style-type: none"> Add table caption. 	<ol style="list-style-type: none"> Select the table and click on the drop down menu next to the Table icon. Select Table Properties, and check Include Caption. Click OK when done.
	<ul style="list-style-type: none"> Check the reading order. 	<ul style="list-style-type: none"> A screen reader reads tables from left to right, and top to bottom, never repeating a cell. Merged, nested, and split cells may alter the reading order of a table. Make sure you construct your tables in a way that accommodates a good reading order.
Color	<ul style="list-style-type: none"> Use sufficient color contrast. 	<ol style="list-style-type: none"> Select the text that you want to change to another color. Click the Text Color icon in the toolbar.  Select the color.
	<ul style="list-style-type: none"> Don't use color alone to convey meaning. 	<p>Don't use color alone to make a distinction, a comparison or to set something apart from the rest of the web page. If you categorize something by color alone, those who are color blind or blind will not benefit from the color distinction.</p>

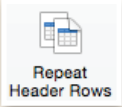


How to Make Accessible Word Documents & Google Docs

Check	Word Document (2011, 2013, 2016)	Google Docs
<p>Headings</p> <ul style="list-style-type: none"> Properly format headings. Use headings in the correct order. 	<ol style="list-style-type: none"> Select the text that you want to make into a heading. Go to the Home tab. Choose the appropriate heading level from the Styles group. <ul style="list-style-type: none"> Heading 1 should only be used ONCE per page. Heading 2, 3, etc. can be used multiple times. (DO NOT skip heading levels!) 	<ol style="list-style-type: none"> Select the text that you want to make into a heading. Go to the Styles menu (or "Normal text") and choose the appropriate heading level from the Normal text drop down list.
<p>Images</p> <ul style="list-style-type: none"> Add alternative (Alt) text to images. 	<ol style="list-style-type: none"> Right click on the image, and select Format Picture... The Format Picture window will open. Select the  icon and click on the ALT TEXT to open Alt text field. Enter image description in the Description field (Not the Title field.) 	<ol style="list-style-type: none"> Select the image. From the Format menu choose Alt text. Type in description text in the Description field. (NOT in the Title field.) Click the OK button when done.
<p>Lists</p> <ul style="list-style-type: none"> Format a list as a list. 	<ol style="list-style-type: none"> Select the text that you want to make into a list. On the Home tab, in the Paragraph group, select the Bullets or Numbering list.  	<ol style="list-style-type: none"> Select the text that you want to make into a list, and do one of these: <ol style="list-style-type: none"> On the Format menu, choose Lists & select Numbered or Bulleted list. Go to the icon toolbar, and choose the Numbered or Bulleted list icon.
<p>Links</p> <ul style="list-style-type: none"> Create a link that describes its destination. 	<ol style="list-style-type: none"> Type out text that describes the destination of the link. (i.e. PCC). Select the text, right click and choose Hyperlink... from the menu. The Insert Hyperlink window will open. Enter a URL address in the Address field (<i>Mac - Word 2011: Link to</i> field.) Click the OK button to save the link. 	<ol style="list-style-type: none"> Type out text that describes the destination of the link (i.e. PCC). Select the Insert link icon (Ctrl/Cmd + K). The Link window will open. Type the URL of the webpage in the Link field. (i.e. "http://www.pcc.edu") Then click the Apply button to save the link.
<p>Math & Science</p>	<ul style="list-style-type: none"> Use the MathType plugin http://www.dessci.com/en/ for MS Word to create math and science equations, formulas and notations. DO NOT use Microsoft's equation editor. 	<ul style="list-style-type: none"> Math and Science equations and formulas cannot be written accessibly in Google Docs.

Save your original files. You may need them if you have a student who needs alternative formats.

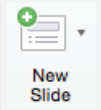



Component	Word Document (2011, 2013, 2016)	Google Docs
<p>Tables</p> <ul style="list-style-type: none"> Indicate column headers for data tables. 	<ol style="list-style-type: none"> Place the cursor in the top row of your data table. Click on the Design tab under Table Tools (Table tab on Mac - Word 2011/Table Design tab - Word 2016). In the Table Style Options group, select the Header Row check box. Under Table Tools, click the Layout tab (Table Layout tab - Word 2011) In the Data group (Word 2016 - Table Design > Layout tab), click the Repeat Header Row button. This will indicate the top row as the table's header. 	<p>Google Docs doesn't allow you to designate column or row headers, so keep your tables small so they are understandable without headers.</p>
<ul style="list-style-type: none"> Check the reading order. 	<ul style="list-style-type: none"> Screen reader reads a table from left to right/top to bottom (never repeating a cell.) Merged, nested, and split cells may change the reading order of a table. Construct your table in a way that accommodates a good reading order. To test the reading order, place your cursor in the first cell of the table. On the keyboard, press the Tab key repeatedly to navigate through the table. This will be the reading order that assistive technologies will use. 	
<p>Color</p> <ul style="list-style-type: none"> Use sufficient color contrast. 	<ul style="list-style-type: none"> Use enough color contrast between the font and its background colors. Without sufficient color contrast, people who have low-vision or are color blind will not benefit from the information. Go to www.pcc.edu/access-word to learn How to Check Color Contrast. 	
<ul style="list-style-type: none"> Don't use color alone to convey meaning. 	<ul style="list-style-type: none"> Don't use color alone to make a distinction. If you categorize something by color alone, those who are color blind or blind will not be able to benefit from the information. 	
<p>Forms</p>	<ul style="list-style-type: none"> Use a form template to create a form. 	<p>Use Google Forms, NOT Google Docs</p>
<ul style="list-style-type: none"> Label form fields and buttons. 	<ul style="list-style-type: none"> Use real text labels for form fields and alternative text for buttons. 	
<ul style="list-style-type: none"> Check the reading order of forms. 	<ul style="list-style-type: none"> Press the tab key repeatedly to check the order a screen reader would navigate through the form. If it doesn't land on the form fields in the correct order, you will need to edit the form. The tab order (or reading order) is important to those who are blind or physically disabled and rely on keyboard access. 	

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How to Make Accessible PowerPoints & Google Slides

Component	PowerPoint (2011, 2013, 2016)	Google Slides
<p>Outline View</p> <ul style="list-style-type: none"> Check the outline view. 	<ol style="list-style-type: none"> Click on View tab (Mac: View > Outline View icon - PPT 2016.) In the Presentation Views group, click on Outline View. In the Outline panel, make sure all text from the slides appears in the Outline View. 	<p>There is no Outline View in Google Slides.</p>
<p>Slide Layout</p> <p>Use the PPT provided slide layouts when building slides to help your slide's reading order remain intact.</p>	<ul style="list-style-type: none"> From Home tab, choose the New Slide drop down menu and select a slide template. (Don't use the Blank slide template.) 	<ol style="list-style-type: none"> Create a new slide (Slide > New Slide). Go to Slide menu, click on Apply Layout and choose one of slide template (not the Blank one).
<p>Reading Order</p> <ul style="list-style-type: none"> Ensure the tab order = the reading order 	<ol style="list-style-type: none"> On the Home tab, click on Arrange and choose Selection Pane (Reorder Objects for Mac - PPT 2011 & 2016.) To see the reading order of the slide, tab through the slide and the corresponding element will highlight. To re-arrange the reading order, click arrow up/down button on the Selection Pane (Mac: drag layers. Highest number is read first.) Test reading order with the Tab key again. 	<ol style="list-style-type: none"> Tab through the slide and the corresponding element will highlight. In the slide area, click on the element that you want to change. To change the reading order, click on Arrange menu > Order. Send backward will raise the element to a higher reading order. Bring forward will make the element lower in the reading order. Test reading order with the Tab key again.
<p>Images</p> <ul style="list-style-type: none"> Add alternative (Alt) text to images and shapes. 	<ol style="list-style-type: none"> Right click on the image and select Format Picture. Click the  icon to open Alt Text field. Enter appropriate alt text in the Description field (not the Title field.) 	<ol style="list-style-type: none"> To insert an image, choose Image from the Insert menu and follow the instructions. To add Alt text, click on the image. Then in the format menu, select Alt text (at the very bottom of the menu). Enter alt text in the Description field (not the Title field).
<p>Lists</p> <ul style="list-style-type: none"> Format a list as a list. 	<ol style="list-style-type: none"> Select the text to make into a list and click on the Home tab. In the Paragraph group, select the Numbering or Bullets icon. <ul style="list-style-type: none"> Use Numbering lists if a sequential order is important to the list. Use Bullets lists if all items are of equal value. 	<p>Go to Format menu > Lists and select one of list styles.</p> <ul style="list-style-type: none"> Use Numbered lists if a sequential order is important to the list. Use Bulleted lists if all items are of equal value.

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How to Make Accessible PowerPoints & Google Slides

Component	PowerPoint (2011, 2013, 2016)	Google Slides
<p>Links</p> <ul style="list-style-type: none"> ■ Create a meaningful link that describes its destination. 	<ol style="list-style-type: none"> 1. Type out text that describes the destination of the link (i.e.PCC Homepage). 2. Select the text, right click and choose Hyperlink... from the menu. 3. The Insert Hyperlink window will open. Enter a URL address in the Address field (i.e. http://www.pcc.edu) (Mac - PPT 2011: Link to field.) 4. Click the OK button to save the link. 	<ol style="list-style-type: none"> 1. Type out text that describes the destination of the link. 2. Select the text, right click and choose Link from the menu. 3. Paste or type in a hyperlink. 4. Click Apply button to save the link.
<p>Tables</p> <ul style="list-style-type: none"> ■ Check the reading order. ■ Indicate column headers for data tables. <p>Note: A table in Slide Show view is not accessible. Use Alt text!</p>	<ul style="list-style-type: none"> ■ A screen reader reads a table from left to right, & top to bottom (never repeating a cell.) ■ Merged, nested, and split cells may change the reading order of a table. ■ Construct your table in a way that accommodates a good reading order. <ol style="list-style-type: none"> 1. Place the cursor in the top row of your data table. 2. Click the Design tab under Table Tools (Mac - PPT 2011/2016: Tables tab) 3. In the Table Style Options group (Mac - PPT 2011 - Table Options > Options / Mac - PPT 2016 - Table Design tab), select the Header Row check box. 4. The cells in the top row of your table make up the column headers. 	<p>You cannot create table column/row headers in Google Slides.</p>
<p>Color</p> <ul style="list-style-type: none"> ■ Use sufficient color contrast. 	<ul style="list-style-type: none"> ■ Use enough color contrast between the text (i.e. black color) and the background color (i.e. white color). ■ Without sufficient color contrast, people who are low-vision and color blind will not benefit from the information. ■ Go to www.pcc.edu/access-powerpoint for How to Check Color Contrast. 	
<ul style="list-style-type: none"> ■ Don't use color alone to convey meaning. 	<p>Don't use color alone to make a distinction. If you categorize something by color alone, those who are color blind or blind won't benefit from the information.</p>	
<p>Math & Science</p> <ul style="list-style-type: none"> ■ Use MathType to write Math equations. 	<p>Use the MathType plugin http://www.dessci.com/en/ for MS Word to create math and science equations, formulas and notations. (DO NOT use MS equation editor.)</p>	<p>Math and Science equations and formulas cannot be written to be accessible in Google Slides.</p>
<p>Video & Audio</p>	<p>Don't embed the video, instead, link out to videos.</p>	

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How to Make Accessible PDFs

Method	Software / Hardware	How to Make it Accessible
Convert MS Office to an Accessible PDF document	<ul style="list-style-type: none"> Microsoft Office 2010, 2013 Pro 	<ol style="list-style-type: none"> Start with a well-structured word document or presentation. Click the File tab and select Save as. In the Save as type field, select PDF (*.pdf) Enter a file name in the File name field. Click on the Options button and make sure the Document structure tags for accessibility and Create bookmarks using Headings checkboxes are checked. Click OK and Save. This will tag all of the text formatting, so page headings and lists are correctly interpreted by a screen reader.
Save your original files (PPT, Word)	<ul style="list-style-type: none"> MS Office 2011 (for Mac) 	<ul style="list-style-type: none"> Microsoft Word & PowerPoint 2011 for the Mac cannot produce a fully accessible PDF. Go to http://www.pcc.edu/resources/instructional-support/access/pdfs-from-mac.html for options on how to create an accessible PDF.
Run Optical Character Recognition (OCR) on scanned document	<ul style="list-style-type: none"> Adobe Acrobat Professional (Version XI Pro) 	<ol style="list-style-type: none"> Open the scanned PDF file. Open the Tools panel (click Tools in top right) and click Text Recognition. Click In This File and the Recognize Text window will open. Click the Edit button to adjust OCR settings. Select English (US) for Primary OCR Language, Searchable Image for PDF Output Style and 600 dpi for Downsample To. Click OK when done.
Run Adobe Acrobat Built-in Accessibility Checker	<ul style="list-style-type: none"> Adobe Acrobat Professional (Version XI Pro) <p>All versions. No matter what you are converting to PDF, it's important to save your original files in case a student needs an alternate format.</p>	<ol style="list-style-type: none"> Click the Tools tab to open the Accessibility panel on the right hand side. <ul style="list-style-type: none"> If you don't see it, click the View menu and select Tools > Accessibility. Under Accessibility, select the Full Check button. The Accessibility Checker window will open. <ul style="list-style-type: none"> Under the Report Options, check on the Create Accessibility Report. Under the Checking Options section: <ul style="list-style-type: none"> Category: Document and check all the items. Click the Start Checking button. The Accessibility Checker Report will display on the left pane.

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Component	Best Practices	How to Make it Accessible
<p>Captioned Videos</p>	<p>Make sure the videos you create are captioned</p>	<ul style="list-style-type: none"> You can use YouTube to caption videos (there are several options). You can create an account at 3cm mediasolutions.org, upload media, and request captioning. If you do this, make sure you have a file of the video (you cannot submit YouTube links). Also, allow some time for the captioning to take place (it is done by real people, so it takes some time).
<p>Captioned Media</p> <p>We recommend you first search for captioned media.</p>	<p>Search for captioned media</p>	<p>How do I find human transcribed captioned videos on YouTube? (Search from YouTube site)</p> <ol style="list-style-type: none"> 1. Enter your search keyword in the YouTube Search field. 2. Add a: , CC (a comma, CC) 3. Press Enter or click the magnifying glass icon  <p>How do I find human transcribed captioned videos from Google?</p> <ol style="list-style-type: none"> 1. Fill out the Advanced Video Search fields (http://www.google.com/advanced_video_search) that you need. 2. Choose the "Subtitles: Closed captioned only" option. 3. Press Enter or click the Advanced Video search button.
	<p>Make sure the YouTube video you use IS NOT Auto-generated.</p>	<p>How do I know?</p> <ul style="list-style-type: none"> Click the Settings button and check the Subtitles field. Avoid auto-generated subtitles and the Translate feature which are not usually accurate. 