WEB ACCESSBLITY 2017 2 2 Accessible Accessible Web Accessibility Accessibility **PowerPoint** Canvas & Google Slides at Evergreen Guidelines & Wordpress 5 6 8 Accessible **Word Documents** Accessible Accessible Accessible Video & Audio **Complex Images** & Google Docs **PDFs** 9 11 12 10 Who's Accessible Accessible Accessibility Responsible

3rd Party Tools

Math & Science

for Accessibility

Checkers

The Anatomy of an Accessible Page



Write meaningful link texts



This graph displays the percentage of undergraduate and graduate students at The Evergreen State College with reported disabilities for Fall Quarters 2001 through 2016. Since Fall 2014, the number of undergraduates with reported disabilities has increased from 9% to 11%, whereas the percentage of graduate students has decreased from about 7% to 5%.

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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Web Accessibility at Evergreen

For more information evergreen.edu/accessibility

Web Accessibility

Adhering to web accessibility guidelines while developing your online course will benefit all students, including those with visual, hearing, mobility and learning disabilities.

Evergreen Web Accessibility Guidelines

Evergreen's Accessibility Guidelines for Online Course Content are based on the internationally accepted Web Content Accessibility Guidelines AA standards (WCAG 2.0).*

This handbook is a reference guide. For more information, visit *www.evergreen.edu/accessibility.*

* Web Content Accessibility Guidelines 2.0, W3C World Wide Web Consortium Recommendation 12 Month Year (http://www.w3.org/TR/2008/REC-WCAG20-20081211/, Latest version at http://www.w3.org/TR/WCAG20/)

Required by Federal Law

In keeping with our commitment of creating a diverse and inclusive environment and learning across significant differences, and in accordance with federal and state laws, Evergreen provides that electronic information and technology be accessible to people with disabilities. "Accessible" means that individuals with disabilities are able to independently acquire the same information, engage in the same interactions, and enjoy the same services within the same timeframe as individuals without disabilities, with substantially equivalent ease and effectiveness of use.

Source: Meredith Inocencio, Director of Access Services (evergreen.edu/access) at The Evergreen State College



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.	 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	 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 2.A	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.

Web Accessibility Guidelines

For more information everyreen.edu/accessibility

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	 Label form fields and buttons clearly. Ensure a proper logical reading order in a form. 	 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.
CC Video	Keep a list of videos and audio recordings that are not captioned / subtitled or transcribed. Access Services will ask you for that	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	list when you have a student with a captioning accommodation.	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 out students with disabilities. For questions regarding interactive applications and software you may be using, please submit a ticket at help.evergreen.edu.
Math & Science	Write math and science equations accessibly.	For web pages, use the Math Editor in Canvas that outputs LaTeX. For MS Word and PPT documents, use the Math Type plugin.



How to Make Accessible Canvas Web Pages

Component	Accessibility Guideline	How to Make it Accessible
Page Template	 Use the most current Canvas site template. (Templates are provided by Academic Techologies and applied automatically.) 	 Use this Help Wiki guide to self-select academic resources, Selecting Academic Technologies (http://wikis.evergreen.edu/computing/index.php/Selecting_Academic_Technologies). Questions? Contact Academic Technologies through help.evergreen.edu (https://help.evergreen.edu/).
Headings	 Properly format headings. Use headings in the correct (hierarchical) order. 	 When in edit mode, highlight text and select a Heading from the Paragraph drop-down menu in the Rich Content Editor. A Canvas page title uses Heading 1. There should be only one h1 per page but there can be multiple h2, h3, h4. DO NOT skip main heading levels and apply consistently throughout page Examples: Heading 2 is great for headlines, Heading 3 is good for separating sections of content, and Heading 4 can be used for sub-sections or general sections of content.
Images	 Add alternative (Alt) text to images. 	 Click Edit to open the Rich Content Editor. In the editing field, click once on the image to highlight it. In the Rich Content Editor, click on the Embed Image icon (resembles a mountain). From the Insert / Edit Image window, under Attributes, enter a description of the image in the Alt text field. Click the blue Update button to save.
Lists	 Format a list as a list using Ordered or Unordered lists. 	 In the editing field of the Rich Content Editor, select the content you want to format as a list. From the toolbar, click on the Bullet list icon if the order doesn't matter. If order does matter, click on the numbered list icon. Note: When using the Rich Content Editor at the Syllabus page, the save button is "Update Syllabus." In a Discussion, the save button for a post is "Post Reply."
Links	 Write meaningful link text that indicates the link's destination. 	 Highlight meaningful text for the link (ex. The Evergreen State College) From the Rich Content Editor's toolbar, click on the Link to URL icon (resembles a chainlink) In the Link to Website URL window, paste or type the URL (http://www.evergreen.edu) into the insert box and click the Insert Link button.
	lick on UDOIT in your Canvas cours	e menu to run an Accessibility check on your site.

How to Make

B

Accessible Canvas Web Pages

For more information evergreen.edu/accessibility

Component	Best Practices	How to Make it Accessible
Tables	 Indicate column (or row) headers in data tables. 	 Scope attributes in a table help provide context to screen readers. To add column and row scope to a table created in the Rich Content Editor, first insert a table and then: 1. To add scope, select the relevant cells of the table to be marked as row or column header. 2. Click the Table icon in the editor's toolbar, select the Cell Properties link. 3. In Cell properties, set the Cell type to "Header cell" and in the Scope menu, select the Column option. 4. To set scope for the row, repeat the process, but in the Scope menu, select the Row option.
	Add table caption.	 A caption can be used to associate a short description to the table. Captions are not required, but they may be helpful in providing additional context. 1. Highlight the table, click on the Table icon in the Rich Content Editor. 2. From the drop-down menu select Table Properties. 3. Under the General tab, check the box for Caption, then click Ok. A new field for a caption should appear at top of the table.
	Check the reading order.	 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	 Use sufficient color contrast. 	 Highlight the text you want to change to another color. Click on the Text Color icon (letter A at left in the toolbar). Click on a color in the drop-down menu to apply it to the text. TIP: Utilize the WebAIM Color Contrast Checker (http://webaim.org/resources/contrastchecker/) to ensure adequate color contrast.
	Don't use color alone to convey meaning.	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.
Math & Science	 Write math and science equations using the Math Editor (LaTeX-based) in Canvas. 	Use the LaTeX Math Editor in Canvas, available in the Rich Content Editor toolbar by clicking on the Insert Math Equation button (paragraph symbol between the Embed Image and Record/Upload Media buttons). For more information, go to the Math & Science page in this handbook.
Multimedia	 Eliminate or limit blinking/flashing content to Make sure all mouse actions can also be co Use an accessible media player like YouTub Run UDOIT to check for Accessibility 	o 3 seconds. Impleted with a keyboard alone. De or Vimeo.

How to Make Accessible Web Pages in WordPress

For more information evergreen.edu/accessibility

Component	Accessibilty Guideline	How to Make it Accessible
Page Template	Use one of the most current WordPress site templates. (Templates are provided by Academic Technologies and applied automatically upon request.)	Examples of WordPress site templates. (https://sites.evergreen.edu/site-templates/) Use this Help Wiki guide to request/self-select academic resources, Selecting Academic Technologies. (http://wikis.evergreen.edu/computing/index.php/Selecting_Academic_Technologies) Questions? Contact Academic Technologies through help.evergreen.edu. (https://help.evergreen.edu/)
Headings	 Properly format headings. Use headings in the correct (hierarchical) order. 	 When in edit mode for a Page or Post: 1. At the editor (in Visual mode), click on the Toolbar Toggle icon at far right of the row of tools. 2. Highlight the text you want to apply a header to. 3. Click on the Paragraph drop-down to select and apply a header. A WordPress page/post title uses Heading 1. There should be only one h1 per page but there can be multiple h2, h3, h4, h5, h6. DO NOT skip main heading levels and apply consistently throughout page. Examples: Heading 2 is great for headlines, Heading 3 is good for separating sections of content, and Heading 4 can be used for sub-sections or general sections of content. **You can also apply styling using CSS in Text mode.**
Images	Add alternative (Alt) text to images.	 In the Page or Post, click on the image once to highlight it. From the pop-up mini-menu, click on the Edit (pencil icon) button. At the Image Details page, enter a description of the image in the Alternative Text field. Click the blue Update button in the lower right corner to save.
Lists	Format a list as a list using ordered or unordered lists.	In the editing field, highlight the content you want to format as a list. If order doesn't matter, click on the Bulleted list button and desired bulleting shape from the dropdown menu. For an ordered list, click on the Numbered list button and desired formatting option from the dropdown menu. **You can also insert a list using CSS in Text mode.**
Links	Write meaningful link text that indicates the link's destination.	To insert a link to a page or post: 1. Highlight text you want to link to. 2. Select the "Insert/edit link" icon (resembles a chain link) from the toolbar 3. Paste the URL of the site you want to link to into the entry field and click the arrow to apply link.



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

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How to Make Accessible Web Pages in WordPress

For more information evergreen.edu/accessibility

Component	Best Practice	How to Make it Accessible	
Tables	Use the TablePress plugin available in WordPress at sites.evergreen.edu and blogs.evergreen.edu.	Jse the TablePress plugin to create and manage tables on your WordPress site. No HTML knowledge is needed, table data can be easily edited. Tables can contain any type of data, even ormulas that will be evaluated. Tables can be inserted into posts, pages, or text widgets. Tables can be imported from Excel (.xls and .xlsx), CSV, and HTML files, and also be exported. After installing the plugin, you can add, import, export, edit, copy, and delete tables via the "TablePress" section in your admin menu. Everything should be self-explaining there. To show one of your tables in a post, on a page, or in a text widget just include the Shortcode [table d= <the-id> /] into your post/page/text widget, where <the-id> is the ID of your table (can be found on the eff side of the "All Tables" screen in TablePress). You can also click on the "Table" button in the toolbar of the post/page editor to see a list of your tables. If you click "Insert" then, the correct Shortcode will be inserted for you automatically. See also the TablePress Usage page (https://tablepress.org/info/#usage) for more information.</the-id></the-id>	
Color		Color choices are handled by your site's theme and may not be easily editable. If you are using a recommended site template you are already using a theme that adheres to best practices for use of color.	
Math & Science	 Write math and science equations using LaTeX. 	Use the WP LaTeX plugin in WordPress. For more information, go to the Math & Science page of the handbook.	
Multimedia	 Eliminate or limit blinking/flashing content to a Make sure all mouse actions can also be cor Use an accessible media player like YouTube Accessible media embeds are built-in with Word etc., on its own line in your page or post. 	3 seconds. npleted with a keyboard alone (without a mouse.) e or Vimeo. Press. Simply paste the URL to your media object hosted at YouTube, Vimeo,	
3D Save	e your original files. You may	need them if you have a student who needs alternative formats.	



How to Make Accessible PowerPoints & Google Slides

For more information evergreen.edu/accessibility

Component	PowerPoint (2011, 2013, 2016)	Google Slides
Outline View Check the outline view.	 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. 	There is no Outline View in Google Slides.
Slide Layout Use the PPT provided slide layouts when building slides to help your slide's reading order remain intact.	 From Home tab, choose the New Slide drop down menu and select a slide template. (Don't use the Blank slide template.) 	 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).
 Reading Order Ensure the tab order = the reading order 	 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. 	 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.
 Add alternative (Alt) text to images and shapes. 	 Right click on the image and select Format Picture. Click the image icon to open Alt Text field. Enter appropriate alt text in the Description field (not the Title field.) 	 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).
Lists Format a list as a list.	 Select the text to make into a list and click on the Home tab. In the Paragraph group, select the Numbering or Bullets icon. Use Numbering lists if a sequential order is important to the list. Use Bullets lists if all items are of equal value. 	Go to Format menu > Lists and select one of list styles. ■ Use Numbered lists if a sequential order is important to the list. ■ Use Bulleted lists if all items are of equal value.
4 A Save	your original files. You may need them if you ha	ave a student who needs alternative formats.



Me How	r to Make Accessible ord Documents & Goog	For more information evergreen.edu/accessibility
Check	Word Document (2011, 2013, 2016)	Google Docs
HeadingsProperly format headings.	 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. 	 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.
 Use headings in the correct order. 	Heading 1 should only be used ONCE per page. Heading 2, 3, etc. c	an be used multiple times. (DO NOT skip heading levels! .)
Add alternative (Alt) text to images.	 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.) 	 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.
ListsFormat a list as a list.	 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. Image: Image and Ima	 Select the text that you want to make into a list, and do one of these: a. On the Format menu, choose Lists & select Numbered or Bulleted list. b. Go to the icon toolbar, and choose the Numbered or Bulleted list icon.
Links Create a link that describes its destination.	 Type out text that describes the destination of the link. (e.g. Evergreen). 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</i>: Link to field.) Click the OK button to save the link. 	 Type out text that describes the destination of the link (e.g. Evergreen). 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.evergreen.edu) Then click the Apply button to save the link.
Math & Science	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.	 Math and Science equations and formulas cannot be written accessibly in Google Docs.
5A s	ave vour original files. You may need them it	f you have a student who needs alternative formats.

How Wo	r to Make Accessible ord Documents & Google Do	ocs	For more information evergreen.edu/accessibility		
Component	Word Document (2011, 2013, 2016)		Google Docs		
Tables Indicate column headers for data tables. 	 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. 	Google Do row heade understan	ocs doesn't allow you to designate column or ers, so keep your tables small so they are dable without headers.		
 Check the reading order. 	 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 This will be the reading order that assistive technologies will use. 	d, press the	Tab key repeatedly to navigate through the table.		
Color Use sufficient color contrast.	 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 	t benefit fror	n the information.		
 Don't use color alone to convey meaning. 	 Don't use color alone to make a distinction. If you categorize something by color alone, benefit from the information. 	those who	are color blind or blind will not be able to		
Forms	 Use a form template to create a form. 	Use Goog	le Forms, NOT Google Docs		
 Label form fields and buttons. 	Use real text labels for form fields and alternative text for buttons.				
 Check the reading order of forms. 	 ading ading s. 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. 				
JB s	ave your original files. You may need them if you have a stu	udent who	needs alternative formats.		



For more information evergreen.edu/accessibility

Method	Software / Hardware	How to Make it Accessible
Convert MS Office to an Accessible PDF document	 Microsoft Office 2010, 2013 Pro 	 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)	 MS Office 2011 (for Mac) 	 Microsoft Word & PowerPoint 2011 for the Mac cannot produce a fully accessible PDF. Go to http://wikis.evergreen.edu/computing/index.php/Accessible_PDF for options on how to create an accessible PDF.
Run Optical Character Recognition (OCR) on scanned document	 Adobe Acrobat Professional (Version XI Pro) 	 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	 Adobe Acrobat Professional (Version XI Pro) 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. 	 Click the Tools tab to open the Accessibility panel on the right hand side. 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. Under the Report Options, check on the Create Accessibility Report. Under the Checking Options section: Category: Document and check all the items. Click the Start Checking button. The Accessibility Checker Report will display on the left pane.

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

How A	w to Make CCESSible	Video & Audio	For more information evergreen.edu/accessibility	
Component	Best Practices	 How to Make it Accessible To test for keyboard accessibility, press the Tab key to navigate to the player, and use the Tab, Arrow keys, Enter, and Spacebar to interact with the media player buttons. 		
Media Player The buttons need to be properly labeled so a screen reader user can operate the player.	Keyboard Navigation It is important to accessibility that students can access and operate a media player with the keyboard alone (not using a mouse).			
Captioned Media We recommend you first search for captioned media. If you need material captioned, this may be provided	Search for captioned media The Evergreen State College Library has a wide selection of captioned media. Please check with the Sound & Image Library for material.	 How do I find human transcribed captioned vide Enter your search keyword in the YouTube Se Add a: , CC (a comma, CC) Press Enter or click the magnifying glass icon How do I find human transcribed captioned vide Fill out the Advanced Video Search fields (ht that you need. Choose the "Subtitles: Closed captioned on 3. Press Enter or click the Advanced Video search 	eos on YouTube? (Search from YouTube site) earch field. eos from Google? tp://www.google.com/advanced_video_search) Ily" option. arch button.	
Please allow 7 business days for processing.	Make sure the YouTube video you use IS NOT Auto-generated .	 How do I know? Click the Settings button and check the Subtitles field. Avoid auto-generated subtitles and the Translate feature which are not usually accurate. 	Autoplay Off On Speed Normal - Subtitles/CC English (auto-generated) - Options Quality Auto (144p) - Click on Settings button	

How to Make Accessible Complex Images

Complex Images include graphs, charts, diagrams, maps, and illustrations. Below are 3 ways to provide alternative (alt) text-based description for complex images, when a simple alt text attribute is insufficient. Choose the best Alt text method for your image types.



Use a Caption

For Web Pages: Your caption must be associated with the image, so make sure to properly add a caption using the **'figcaption'** html tag. (Requires HTML editing) *Note:* For MS Word and PowerPoint: Right click on the image and select **Add Caption**.

Example Code:

```
<figure><img src="images/fig9" alt=""
width="160" height="120" />
<figcaption><em>Caption goes here,
Fig.9-Graph..</em></figcaption></figure>
```



Fig.9 - Graph of the length of daylight from March through December at various latitudes. For example, at 40 degree latitude there are 12 hours of daylight in March. In October, there are 10.8 hours of daylight at 40 degree.



If the image is adequately described in surrounding text (including text-based data tables), so that the image is just reinforcing the text, no further description is needed necessary.

Example:

Modeling amount of daylight as a function of time of year, Figure 9 and the table beside it, show the number of hours of daylight as functions of the time of the year at several latitudes, from March through December.



	Hou	rs in v	aried	latitu	ides
Month	20°	30°	40°	50°	60°
Mar.	12	12	12	12	12
Apr.	12.3	13.2	13.5	14	17.5
May	12.9	13.7	14.3	15.5	17.7
Jun.	13	14	14.9	16.1	18.2
Jul.	12.8	13.8	14.2	15.7	17.8
Aug.	12.5	12.8	13.2	14	15
Sep.	12	12	12	12	12
Oct.	11.6	11.2	10.8	10	9
Nov.	11	10.2	9.7	8.3	6.5
Dec.	10.9	10	9.1	7.9	5.7



Link out to a web page with a longer description

If the image cannot be described using methods A or B, use the 'longdesc' attribute (Requires HTML editing).

Example code:



<html> Modeling amount of daylight as a function of time of year Figure 9 shows graphs of the number of hours of daylight... </html>

fig9-longdesc.html



The graph image is from Lucia C. Harrison, Daylight, Twilight, Darkness and Time (New York: Silver, Burdett, 1935) page 40.

Example of Data Table for Figure 9



How to Make

Accessible Complex Images

For more information everyreen.edu/accessibility

Resources for Image Description

- Guidelines for Describing STEM (Science Technology Engineering and Math) images http://goo.gl/TBT01Z
- How Do We Access Meaning in Art? (Describing art images in alt text) http://goo.gl/dAXZOx
- Video: How to Describe Complex Images for Accessibility (From Diagram Center's Webinars) http://goo.gl/QgsS5G
- Diagram Center's Accessible Image Sample Book http://goo.gl/N0arvW

Tactile Representations

Sometimes touching a model or a tactile graphic is the best way to describe something.

Tactile graphics

Tactile graphics may have different raised dots or lines to show variation in graphs, charts and maps. Check with your textbook publisher for any available tactile graphics or contact Access Services for information on resources for creating tactile graphics.

Example:





A 3D model of chest anatomy

Indicate if a model is available

If you know where a 3D model of the image is available, indicate that in your image caption or on the same page as the image.



How to Make **Accessible Math & Science** ×÷

Component	Math Tools	Best Practices	
Math & Science equations, formulas and notation	Canvas	We recommend that as much of the class content as possible be provided on and conducted with Canvas. All output from the Canvas Math Editor is stored as LaTeX which is screen reader-accessible.	
	WordPress	We recommend that as much of the class content as possible be provided in and conducted with the WP LaTeX plugin in WordPress.	
	 Word documents 	MathType is an equation editor created by Design Science that is compatible with MS Word for Windows and Mac. Together, MS Word with MathType can be exported as LaTeX or it can be converted to braille. (Save your original files.) DO NOT use Microsoft's equation editor.	
	■ PDFs	Math IS NOT accessible in PDF. Save the original file with the original MathType or LaTeX equations, formulas and notations. Access Services may ask for your original files when there is an accommodation need.	
	PowerPoints	For MS PowerPoint 2013, use the MathType 6.9 plugin or later to create math and science equations, formulas and notations. DO NOT use Microsoft's equation editor. If you convert to a PDF or export to a webpage, save your original MS PowerPoint files which Access Services may ask for.	
	 Graphs 	To make graphs accessible, do your best to describe them using alternative text, long descriptions, or captions. Check with your textbook distributor for any available tactile graphics or contact Access Services for information on resources for creating tactile graphics.	
	■ LaTeX	LaTeX is a mark-up language. Converting LaTeX documents into an accessible format is usually straightforward. Keep LaTeX original files if you convert to other formats. The Math Editor in Canvas is based on LaTeX.	
	WeBWorK	WeBWorK is an accessible and free online homework platform for math and sciences courses.	
9 Save	your original :	files. You may need them if you have a student who needs alternative formats.	

Linking 3rd P	For more information evergreen.edu/accessibility		
Ask about	Questions and Considerations		
How accessible are their digital materials?	 Are the videos captioned and audio recordings transcribed? There should be transcripts for audio recordings and captions or subtitles for video. If they aren't available, ask the publishing representative when they plan to have them. If they have no plans, ask them to give Evergreen written permission to transcribe or caption the media when there's an accommodation need. Are images described in alternative text? PowerPoint slides from publishers often have images without any alt text. Ask your publishers if their images have alt text. 		
	Can all of the text that is displayed on the screen be read aloud by text-to-speech software? Screen readers (assistive technology used by people who are blind) read real text. They cannot read images of text or text embedded in Flash animations/movies/simulations.		
	How accessible are the E-books? Are the images described? Are embedded objects like videos keyboard accessible and captioned? Is the E-reader keyboard and screen reader accessible?		
	Can all interactivity (media players, quizzes, flashcards, etc.) function using only the keyboard (no mouse)? People who are blind or have upper mobility disabilities cannot use a mouse. They use the keyboard to navigate and interact on the Web. It is required that any interactive elements on a publisher's website (or on a DVD included with the book) be operable by keyboard alone if they are used in your course.		
	 Is there any documentation available (VPAT or White Paper for example) that confirms accessibility or usability testing results? A VPAT (Voluntary Product Accessibility Template) is used by many organizations to report the level of accessibility of software products. Is your multimedia (Adobe) Flash or (Oracle) Java-based? Can your materials be watched on mobile devices? Content created in Flash or Java can be inaccessible and may not run on mobile devices and tablets, which are becoming more prevalent. What are the computer requirements for using their materials? Will the materials work on mobile devices? Include information about what software and web/browser-based tools you may require students to use in your course syllabus. 		
Open Educational Resources (OER)	 OERs have the same accessibility requirements as all other digital materials. Plus OERs are for more information about OERs and Accessibility, check out http://oeraccess.merlot.org/ 	usually free to students!	
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AUTOMATED Accessibility Checkers

For more information evergreen.edu/accessibility

Software	Tools	How to Check	
MS Offices 2010 & 2013 Windows (Word, PowerPoint)	 A built-in accessibility checker (Note: The accessibility checker only checks .docx and .pptx files) 	 1. Go to the File tab. 2. Select Info from the sidebar menu. 3. Click on the Check for Issues button. 4. Select Check Accessibility from the drop-down list. The Accessibility Checker panel will open to the right of the document. The accessibility checker provides you with a list of errors, warnings & tips. When you click on an error or warning, instructions on how to fix it appear below in "Additional Information". 	
PDF (Adobe Acrobat XI Professional)	 A built-in accessibility checker (View > Tools > Accessibility) 	 Click the Tools tab to open the Accessibility Tool panel on the right. (If you don't see it, click the View menu and select Tools > Accessibility). Select the Full Check button & the Accessibility Checker Options will open. On the Report Options section, check on Create Accessibility Report . On the Checking Options section: select Document under Category field, and check all items. Click on the Start Checking button and the Accessibility Report will display. 	
Canvas, WordPress and Web pages	 A browser-based checker/reporting tool: WebAIM WAVE is a private and secure accessibility add-on for the Chrome browser. 	 To install WebAIM's WAVE Chrome extension in the Chrome browser: Using Chrome as your browser, go to WebAIM's WAVE Chrome extension page (http://wave.webaim.org/extension/).At the extension page, click on the link, "WAVE Chrome Extension at the Google Web Store" and follow directions for installing the extension to the browser. To run a WAVE report: Click on the WAVE icon to the right of your browser address bar. Use the WAVE menu to view a report summary, alert details, documentation, and/or outline information. To remove the WAVE interface, click the WAVE icon again or refresh the page. 	

Hands-on testing by humans is the best way to check Accessibility.

Who's Responsible for Accessible Technology?

Faculty, Support Staff, and Access Services

- **Test** the accessibility of electronic materials, software and web applications used in classes.
- **Develop** accessibility plans proactively when barriers are found.
- **Work** together to identify and implement appropriate accommodations when barriers are encountered.

Faculty RESPONSIBILITIES



As the subject matter expert and the course developer, the faculty member (in consultation with appropriate support staff):

Uses Guidelines to Web Accessibility when creating or preparing instructional materials.

- **Uses** accessible documents that follow appropriate guidelines (evergreen.edu/accessibility).
- **Designs** clear and consistent navigation.
- Writes alternative text descriptions for images.
- Writes math and science with LaTeX MathType or Libre Office.
- **Retains** original files (Powerpoint, Word, etc.)

Supplies Access Services with course materials upon request for an accomodation.

Reviews accessibility of technology and electronic materials used in course with assistance from support staff as needed.

Develops plan for making inaccessible program content accessible.

Support Staff RESPONSIBILITIES

As support to faculty and/or students, support staff in Academic Technologies, the Library, and Access Services will:

Assist faculty with replacing or reformatting course materials and legacy documents for timely accommodation.

Assist faculty with checking accessibility of required software and electronic course materials

Offer training sessions or one-on-one consultations for faculty.

Develop training materials. Point faculty and staff to current resources.

Review courses for accessibility and provide feedback and support to faculty.

Host, procure and/or **replace** materials, software, systems, and applications that meet accessibility standards and guidelines when possible.



Access Services RESPONSIBILITIES

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As a student resource, with expertise in alternative formats and assistive technologies, Access Services will:

Review documentation of disability and determine student eligibility for accommodation.

Lead efforts to ensure students are appropriately accommodated.

- Notifiy faculty when an accommodation is required.
- **Supply** students with an accessible format of the textbook.
- **Provide** alternative format of PDFs, math/science and publishers PPTs.
- Administer other reasonable auxiliary aids and services.





Web ACCESSIBILITY

Training & Support

evergreen.edu/accessibility

Check the accessibility website for how-to instructions & video tutorials.

Accessibility Support - Faculty

Academic Technologies Phone: (360) 867-6234 Create support ticket at https://help.evergreen.edu

Websites

- Accessibility: evergreen.edu/accessibility
- Instructional Support: http://wikis. evergreen.edu/computing/index.php/ Curricular_Support_Overview
- Access Services: evergreen.edu/access/

Testing Tools

- Firefox and IE: Favelets http://jimthatcher.com/favelets
- Chrome WAVE Extension http://wave.webaim.org/extension/
- MS Word: Built-in 2010, 2013, 2016 (PC)
- MS PPT: Built-in 2010, 2013, 2016 (PC)
- PDF: Built-in Adobe Acrobat Pro
- Cynthia Says: website accessibility checker http://cynthiasays.com/
- Colour Contrast Analyser http://www.paciellogroup.com/resources/ contrastAnalyser
- University of Washington DO-IT http://www.washington.edu/doit/



Based on work from PCC (pcc.edu/access) and modified for The Evergreen State College.



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