

A Site Owner's Guide to YaleSites Accessibility Handout

<https://yalesites.yale.edu/refresh-my-site> – If you need assistance updating to a YaleSites 2016 templated theme email yalesites@yale.edu. You can say you'd like assistance and that Chris Mongillo agreed to help you through the process.

<https://accessibility.yale.edu> – Information on all things web accessibility related.

<https://wave.webaim.org/> – Accessibility Evaluation tool for web pages. Browser extension for Firefox and Chrome. It will give you more information than you need as an editor, but it calls out headings that are not structured sequentially and when alt text for links is missing.

<https://webaim.org/resources/contrastchecker> – Color Contrast Checker.

<http://www.hemingwayapp.com> – To help simplify writing.

For those who asked about video that demos assistive technology, this is entitled Web Accessibility for People with Vision Impairments. Randy Knapp, a blind person, demos JAWS screen reader software:

<https://www.youtube.com/watch?v=2j2x2miPPDQ>

How to Lookup Your YaleSites Theme

- Once CAS'd in go to Appearance in the toolbar menu.
- The theme your site is currently using will be enabled at the top of the page.

Visual Disabilities

Blindness

- Use Screen readers or Braille readers to navigate a website
- Can use technology to skim the page
- May have trouble with automatically playing or moving content
- Rely on good underlying code, headings, links, image descriptions and textual information

Color Blindness and Low Vision

- May increase default font size or change colors on their screen
- Rely on good color contrast
- True text, not images of text
- Language that doesn't describe the location, color, or shape of the page

Text

Formatting

- Never underline or strikethrough
- Generally avoid: center, right, or justified alignment. Left alignment is easiest to read.
- Generally avoid: All Caps (acronyms OK)

- OK if used judiciously for emphasis: bold, italics

Use Lists Where Possible

- Lists are easier to scan than paragraphs for a sighted and a blind person.
- Use the list tool in the WYSIWYG body field for properly coded lists.
- Screen readers will announce a list and the number of items in it if the list tool is used.

Example of content as paragraph and list

Deque Universities' Web Accessibility Curriculum discusses why web accessibility matters, types of disabilities and the related challenges (Visual, Auditory, Motor, Cognitive, Seizure), and the assistive technologies and methods used by people with disabilities to access the web.

Deque Universities' Web Accessibility Curriculum discusses:

- Why web accessibility matters
- Types of disabilities and the related challenges (Visual, Auditory, Motor, Cognitive, Seizure)
- The assistive technologies and methods used by people with disabilities to access the web

Avoid Text Decorations and Images of Text

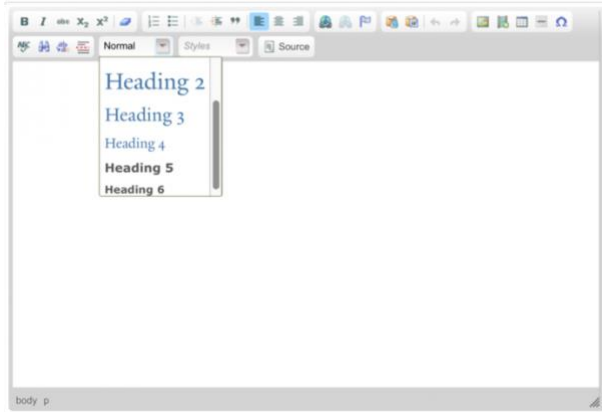


Your vision allows you to select an area of a screen you need. Assistive technology allows a blind or low-vision person to do it by character provided true headings are used.

Headings

Use True Headings

- Page title on YaleSites is by default an h1.
- Should create a logical outline. Convey main idea of the page. H2 starting new sections h3 starting sub sections within the parent h2.
- Nest headings hierarchically, don't skip levels. (don't jump from h2-h5)
- Don't choose headings based on appearance
- Bolding normal text does not create a true heading. It won't be read as such by a screen reader.



Links

- Use descriptive links that are meaningful as stand-alone elements.

Descriptive Links

- [Lynda.com](#) is free to anyone with an active Yale NetID.
- [WebAIM](#) offers in depth explanation of accessibility issues and on-site training for a fee.
- [The W3C's ARIA authoring practices document](#) offers demonstrations of most development patterns developers should know.

Nondescript Links when read as stand-alone links.

- Free Lynda.com tutorials for anyone with an active Yale NetID [here](#).
- WebAIM offers in depth explanation of accessibility issues and on-site training for a fee [here](#).
- [Click here](#) for W3C's ARIA authoring practices document.

URLs as Links: Not too long

Too long: <https://yalesites.yale.edu/refresh-my-site>

Alternative: [Refresh your site.](#)

Too long: <https://webaim.org/resources/contrastchecker>

Alternative: [Webaim color contrast checker](#)

OK

yalecollege.yale.edu

usability.yale.edu/web-accessibility

Color Contrast

Color Blindness

Affects more men (~8%) than women (~0.5%)

The most common is red-green color-blindness rely on:

Information conveyed by color must be accompanied by a programmatically-discernible text alternative. That is, the text needs to be read in a way that makes sense without the color.

- Good color contrast
- Non-color ways of conveying information (e.g. words or symbols)

Original Table	
Colorblind Perspective	
JavaScript Courses	
Course Title	Level*
Angular.js	Red
Node.js	Red
JQuery	Yellow
Introduction to JavaScript	Green

*Red = advanced, Yellow = intermediate, Green = beginner

Original Table	
Colorblind Perspective	
JavaScript Courses	
Course Title	Level*
Angular.js	Dark Gray
Node.js	Dark Gray
JQuery	Yellow
Introduction to JavaScript	Dark Gray

*Red = advanced, Yellow = intermediate, Green = beginner

<https://webaim.org/resources/contrastchecker>

Tables

Tables are for Data, *not* for layout
Layout Tables are Discouraged

Fire, Health & Safety	Related Yale Links
<input type="checkbox"/> Fire Safety	<input type="checkbox"/> Going Green
<input type="checkbox"/> Health and Safety	<input type="checkbox"/> Yale Student Life

Data tables should always have column headings.

People using screen readers can have the row and column headers read aloud as they navigate through the table.

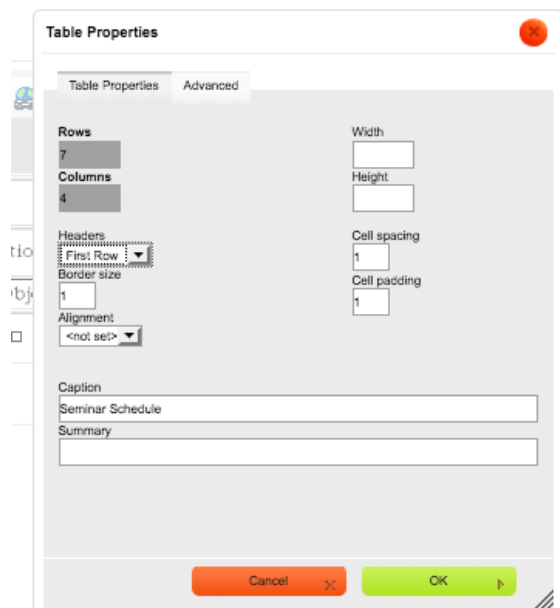
People with low vision have devices that change:

- header font
- header text size
- header color
- table format (list or grid)

Climate Stats 2015 - 2017

YEAR	COLDEST MONTH	COLDEST DAY
2015	January	10°F
2016	February	6°F
2017	January	14°F

Table captions are recommended because screen readers use them to identify and distinguish tables on a page.



Screen reader display of one table without a table caption and two with.

Tables

2 columns, 3 rows
 Climate Stats 2015 - 2017 3 columns, 4 rows
 Seminar Schedule 4 columns, 7 rows

Complex tables are confusing even for users without disabilities.

How to avoid:

–Split the content into multiple tables

–Split the content into multiple pages

Sample Complex table:

Day	Seminar		
	Schedule		Topic
	Begin	End	
Monday	8:00 a.m.	5:00 p.m.	Introduction to XML
			Validity: DTD and Relax NG
Tuesday	8:00 a.m.	11:00 a.m.	XPath
	11:00 a.m.	2:00 p.m.	XSL Transformations
	2:00 p.m.	5:00 p.m.	
Wednesday	8:00 a.m.	12:00 p.m.	XSL Formatting Objects

Same table made simpler. Click on existing table in the body field, and right-click to select table properties from the dropdown menu.

Make first row Headers and add table caption as shown here.

Seminar Schedule

DAY	BEGIN	END	TOPIC
Monday	8:00 a.m.	5:00 p.m.	Introduction to XML
Monday	8:00 a.m.	5:00 a.m.	Validity: DTD and Relax NG
Tuesday	8:00 a.m.	11:00 a.m.	XPath
Tuesday	11:00 a.m.	2:00 p.m.	XPath and XSL Transformations
Tuesday	2:00 p.m.	5:00 p.m.	XSL Transformations
Wednesday	8:00 a.m.	12:00 p.m.	XSL Formatting Objects

Images

Users with cognitive disabilities or users with low quality internet connections may prefer to turn images off altogether.

- Alt text is read aloud by screen readers to give users an understanding of an image meaning context with the rest of the content on a page.
- Alt text should describe the image in context with the rest of the page. The length should be (no more than 250 characters).

- Alternative text is generally provided in two ways: nearby, real text; or alt text.
- If the same information is in text close by (e.g. a surrounding paragraph), that is normally sufficient for accessibility.
- Images as links MUST have alt text that describes the link destination.
- If you're using YaleSites templated themes you can omit alt text for a decorative image.
- Use your own judgement to discern whether or not an image is informative or decorative.



A page about Yale's best classes.

alt = "A student attending a class session of Psychology 157 in a crowded lecture hall"

A clothing website.

alt = "An athletic young man in our new slim fit long sleeve shirt. Color: blue. Size: medium."

Auditory, Motor and Cognitive Disabilities

Deafness / Low Hearing

Rely on:

- Captions and transcripts of videos and audio recordings
- Live captions for live video and audio
- Non-sound ways of conveying information

For information on captioning resources: <https://usability.yale.edu/web-accessibility/articles/multimedia>

Paralysis, Low Coordination, Tremors, Numbness

Rely on:

- Keyboards in lieu of a mouse or track pad.
- Skip links

Impairments to Learning, Reading, Memory, Attention, Seizure

- Largest population by far, with many undiagnosed
- Limited cognitive resources to devote to web tasks
- Rely on many of the same resources as other disabilities.
- www.hemingwayapp.com
- High school reading level is recommended for web writing.
- YaleSites offers Writing For the Web: <https://yalesites.yale.edu/calendar>

Documents

Information on making PDFs and other documents accessible can be found here.

<https://usability.yale.edu/web-accessibility/articles/pdfs-documents>

Deciding how best to remediate documents:

- How many of the PDFs associated with this site are actually used?
- Do you have native files for the PDF documents?
- How often would you say they are updated?
- Can any of them be made into HTML files instead of documents, or can a companion HTML file be provided for disabled folks