Accessibility Evaluation Worksheet Guide

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Accessibility Evaluation Requirements

- Operating System (OS)
 - Window OS
 - Browser: Google Chrome, most updated version (Official BUILD) (64-bit)
 - Tools used: JAWS 2021, WAVE, ANDI, JAWS Inspect, Colour Contrast Analyzer, Windows Resizer
 - Please refer to the manual on how to install all the tools

Checklist

For every web page or product, enter the following at the top of the evaluation sheet:

- Company name
- The current date
- Evaluator name (your name)
- Browser used for the evaluation (e.g., Google Chrome) and version number of the browser
- Assistive technologies used for the evaluation (e.g., JAWS, Colour Contrast Analyzer, etc.)
- The URL or the web page or product being evaluated

Evaluation Sheet -Company/ Product Name, Tools Used

B

[Company Name] Accessibility Evaluation Worksheet

Review Information Date: Enter start date of the evaluation

Evaluator Name: Enter your name

Browser: Enter browser used and its version number Tools Used: List out tools used to evaluate the website URL: URL of what is being evaluated

• Save the file with the company or product name, Accessibility Evaluation Worksheet and date of review (e.g., "Athlete Network Accessibility Evaluation Worksheet 07-20-21") Rating - Pass, Fail, or NA?

- Determine whether each checkpoint is a Pass, Fail, or NA (not applicable).
 - Instructions on how to evaluate each checkpoint will be presented later in this manual.
 - If there are no materials or functions related to the checkpoint, mark NA.
- There are no "partial passes"—mark each checkpoint ONLY as Pass, Fail, or NA.
- Add information in the "Comments" section of the evaluation sheet to expand on why a checkpoint was marked Pass, Fail, or NA.

Evaluation Sheet - Rating and Comments

- All of the information from the evaluation will be entered on the evaluation sheet.
- If you find an issue that is not on the linked main URL, include the specific URL of that page in the comments section (e.g., include the link to the "About us" page if an issue was found there).
- Include screenshots of issues to help better describe the problem.

Keyboard Criterion						
Check Point	Type of Test	Comments	Fail/Pass/NA			
2.1.1 Keyboard: All function	2.1.1 Keyboard: All functionalities must be accessible and operable through a keyboard.					
G202: Ensuring keyboard control for all functionality	Check that all functionality can be accessed using only the keyboard.	Add descriptive comments to expand on the Fail/Pass/NA rating	Mark rating here			
	Menus can be opened using enter or the space bar.					
	The up/down arrows keys can be used to navigate the open menu.					

Tips for Assessing Websites

- When going through websites, use the tab key to check for keyboard accessibility and focus on active elements (i.e., links, buttons)
- Instead of using "View page source" or "Inspect," use WAVE and ANDI to assist you through the accessibility checkpoints.
- Follow the steps provided in the guide. If you would like to see more detailed information, click on the the provided links at each checkpoint.

Criterion

There are a total of 6 criterion and each criteria contains multiple checkpoints.

- **1**. Keyboard Criterion
- 2. Page Criterion
- 3. Form Criterion
- 4. Video and Audio Criterion
- 5. Modal Windows Criterion
- 6. Miscellaneous Criterion

Keyboard Criterion

2.1.1 Keyboard: All functionalities must be accessible and operable through a keyboard

Checkpoint G202: <u>Ensuring keyboard control for all functionality</u>

Check that all functionality can be access using only the keyboard

- **STEP 1:** When on the page or document, press the "tab" key to navigate through the all of the active elements.
 - If any link is skipped, this would fail the checkpoint.

Menus can be opened using the enter or space bar

• **STEP 1:** When a menu is selected, press the "enter" key or spacebar to see if the menu can be opened. ***If there are no menus, mark as* "*NA*"

The up/down arrow keys can be used to navigate the open menu

- **STEP 1:** When in the open menu, press the up/down arrow keys to see if the menu can be navigated.
- **For all checkpoints, check accessibility with and without JAWS running.
- **If none of these actions can be performed, mark the checkpoint as a "Fail."

- Menus can be opened using the enter or space bar
- To activate the menu, you will use the spacebar
- The up/down arrow keys can be used to navigate the open menu
- When using the up/down arrow keys it should be navigating the menu in a chronological order
- The CSULB menu can be activated using the spacebar, and the up/down arrow keys could be used to navigate through the menu items.

ACADEMICS	CAMPUS LIFE	ABOUT	ALUMNI
Colleges & Degrees	Athletics	About Us	Alumni Home
Research	Centers & Organizations	Accreditation	Alumni Volunteering
Academic Calendar	Commencement	Tuition and Fees	Alumni Giving
International Education		Explore	
Library	Housing	Parking & Maps	
Graduate Studies	Student Life	Careers with CSULB	

Example: CSULB Website Keyboard Criterion 2.1.1 Checkpoint G202

2.1.1 Keyboard: All functionalities must be accessible and operable through a keyboard.

• Checkpoint G90: <u>Providing keyboard-triggered event handlers</u>

<u>Provide redundant keyboard-based mechanisms to accomplish the</u> <u>functionality provided by other device-specific functions</u>

- **STEP 1:** Use the WAVE extension to see if there are flags for any device-specific functions (e.g., mouse-specific functions include "drag and drop").
 - If WAVE does not detect anything, manually check if there are any device-specific functions.
- STEP 2: If there are device-specific functions, see if there is a keyboard equivalent (e.g., ctrl C, ctrl V for copy and paste). If there is no equivalent, mark this checkpoint as "Fail."
- **If there are no device-specific functions, mark the checkpoint as "NA"

- <u>Provide redundant keyboard-based mechanisms to</u> <u>accomplish the functionality provided by other</u> <u>device-specific functions</u>
- An example of this feature is being able to drag and drop images onto the calendar.



Example: Drag and Drop redundant keyboard-based mechanisms Checkpoint P90

2.1.2 No Keyboard Trap: Validate that keyboard focus does not get "trap" within subsections of content, plug-ins or embedded applications.

• Checkpoint G21: Ensuring that users are not trapped in content.

<u>Confirm keyboard-only users do not become trapped in any form of</u> <u>content. (e.g., widgets, menus, feeds)</u>

- **STEP 1:** Press the tab key to navigate through all of the content. Keyboard traps are mainly found in widgets, menus, and feeds.
- Being trapped in a section means that you are not able to navigate to other parts of the webpage.
 - For example, if you are unable to exist a menu using keyboard only, this would fail the checkpoint.

- <u>Confirm keyboard-only users do not become trapped in</u> <u>any form of content. (e.g., widgets, menus, feeds)</u>
- Example of a keyboard trap is when the user is trying to tab from the "Shop" link to "News" link but the action could not be completed.



Example: Keyboard trap Checkpoint G21

2.4.1 Bypass **Blocks:** Provide a skip mechanism that will enable the users to skip repeated content blocks such as navigational menus.

• Checkpoint G1: <u>Adding a link at the top of each page that goes</u> <u>directly to the main content area</u>

<u>Check to see if there is a "skip to ..." link and it's the first link on the page.</u>

- ANDI or WAVE can be used to see if there is a "skip to..." link
- **STEP 1:** Press the "tab" key to check if the first link on the page is a "skip to..." link. ***If there are only two or three items in the top navigation, a "skip to..." link is not necessary*

<u>Test "Skip to" link to see if it visible when it has keyboard focus.</u>

• **STEP 1:** Press the "tab" key and see if there is visible focus on the link (e.g., color change). This link should be the first link you interact with when you press tab.

<u>Activate the "Skip to" link to see if keyboard focus moves to main</u> <u>content.</u>

• **STEP 1:** Press the "enter" key when the link is selected and see if focus moves to the indicated content.



Example:Checkpoint G1

Interacting with the "Jump to Content" (Skip to... link) will take the user to the main content instead of going through the navigation bar options. The main content is highlighted with a red box. Since the "skip to..." link was active, this would be considered as a pass for the checkpoint.

2.4.3 Focus Order: Active elements receive focus in a logical order that preserves meaning and operability

• Checkpoint G59: <u>Placing the interactive elements in an order that</u> <u>follows sequences and relationships within the content</u>

Focus order is aligned with reading order to maintain a logical and intuitive navigation of the content.

• **STEP 1:** Press the "tab" key throughout the page. Ensure that the active elements on the page receive focus in the order in which they appear (i.e., the first active element is the first to receive focus). Follow the logical reading order—left to right, top to bottom.

- Focus order is aligned with reading order to maintain a logical and intuitive navigation of the content.
- Use the tab key to go through the website link to see the focus order of the links
- ANDI can also be used to see how the link order is organized
- The focus order for the Reddit navigation bar area was from left -> right.
- This would be considered as a pass for the checkpoint.



Example: Focus order (Reddit) Checkpoint G59

2.4.7 Focus Visible: Any active element (e.g. links, buttons, form fields) has a visible keyboard focus indicator.

• Checkpoint C15: <u>Using CSS to change the presentation of a user</u> interface component when it receives focus

Make sure active elements visually indicate focus

- **STEP 1:** Use the tab key to navigate the page.
- **STEP 2:** Check that there is some visible indicator of focus on the element (e.g., background or border changes color). If not, mark this checkpoint as "Fail."
- STEP 3: Use the tab key to move to the next element.
- **STEP 4:** Check that indicator of focus is removed. If not, mark this checkpoint as "Fail."

- <u>Make sure active elements visually indicate focus</u>
- There is a visual highlight that lets the user know which link that they are currently interacting with.
 - The "Graduate programs" link is the link that has focus. It is shown with the rectangle highlight and a color change in the text

	UNDERGRADUATE PROGRAM	
	GRADUATE PROGRAMS	
ð.	STUDENT RESOURCES	
	RESEARCH	

Example: CSS Visual Focus Checkpoint C15 2.4.7 Focus Visible: Any active element (e.g. links, buttons, form field) has a visible keyboard focus indicator

• Checkpoint C15: <u>Using CSS to change the presentation of a user</u> interface component when it receives focus

Ensure that there is sufficient contrast between the visible focus & the background of the element. This includes on roll-over.

- **STEP 1:** Use Colour Contrast Analyser, WAVE, or ANDI to check the contrast between the visible focus and background of the element. If the contrast is below 4.5:1, this checkpoint is a fail.
- For the comment section in the evaluation please include the passing/failing colors (you can list the HEX code) and the contrast ratio. A screenshot of the image would also be helpful if possible.
- Screenshot the page for the color changes when you are checking the contrast ratio with the Colour Contrast Analyser tool if the colors change while you are using the dropper to detect the color.

- The contrast between the thin blue line indicating focus and the black background is not sufficient, per Colour Contrast Analyzer.
- It did not meet the requirement of a 4.5:1 color contrast ratio

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Type your message	

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	RGB	HSL H	SV		
Synchronize colo	our values				
Red					2
Blue					5
Alpha					
Background co	olour		_		_
HEX	#2?	32633			
	<i>""</i> 2\	2000			
				-+ <i>V</i>	
▼ Sample prev	iew			_	
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Example: LB Athletics Network Keyboard Criterion 2.4.7 Checkpoint C15

Page Criterion

1.1.1 Non-text Content: All non-text content that is presented to the user has a text alternative that serves the equivalent purpose.

• Checkpoint H₃₇: <u>Using alt attributes on img elements</u>

Alt attributes are short and descriptive

- **STEP 1:** Use WAVE or ANDI to check alt attributes for images.
- STEP 2: Check that the attributes are short (i.e., not the length of a paragraph), yet descriptive for the image. If not, mark this checkpoint as "Fail." **Decorative images can have a null alt attribute: (alt= ""). If there are captions, ensure they are not redundant with alt text.
 - If text is present, check the alt-attribute to make sure it describes the image and not i.e. "image-o1".

Images with text have the same text in the alt attribute

• **STEP 1:** If there are words/text in the image, check that those same words/ text are in the alt attribute indicated by WAVE/ANDI. If the text is not also present in the alt attribute or there is a lot of text (e.g., paragraph length) mark this checkpoint as "Fail." **If there is no text in the images, mark this checkpoint as "NA"

Alt attributes are short and descriptive

• The alt attribute describes the image this alt attribute "shark shack and staff" describes how there are staffs under the shark shack canopy.





Example: Alt text description Checkpoint H37

Images with text have the same text in the alt attribute

- The alt attribute states the text that is written on the image.
- The example below shows how Department Statements and Faculty History have the correct alt attribute while the Mission Statement should be adjusted to "CSULB Mission Statement"



Example: Images with text alt text description Checkpoint H37 1.3.1 Info and **Relationships**: Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text.

• Checkpoints H42: <u>Using h1-h6 to identify headings</u>

Heading elements are hierarchically correct

- **STEP 1:** Using either WAVE or ANDI, check that heading elements in the HTML source are presented in order (i.e., h1 is first, h2 is second). If not, mark this checkpoint as "Fail."
- H1 should always be the largest section of the website, generally there is only one h1 used, but if you see multiple please make your best judgement on whether it passes or fails this checkpoint.

Heading elements are not used to style content

• **STEP 1:** Using either WAVE or ANDI, check that heading elements are used as headings, rather than for a certain visual look on the webpage. If heading elements are not used correctly, mark this checkpoint as "Fail."

• <u>Heading elements are hierarchically correct</u>

- H1 should be used to describe the main content of the webpage. In this example about us and careers are also titled as H1 it is used incorrectly.
- H1-h6 should be in numerical order if you see a scenario where it in an order of h1 -> h2 -> h5 and skips the header in between, this would fail the checkpoint.

Headings List (ordered by occurance):

<h1>LB Athletics Network The new location for all of the servic...</h1> <h1>About Us</h1> <h2>The LB Athletics Network was built specifically for our curr...</h2> <h1>Join the Network</h1> <h1>Careers</h1> Example: LB Athletics Network Page Heading Hierarchical Order • Heading element is not used for names, and ordinary text is under h2. This is an incorrect use of h2. The paragraph function should be used for the text.

h2

Upcoming events, professional development opportunities and much more. One great location for all of our current and alumni athletes to stay connected.

Resources

h2

Student-athletes are encouraged to use all the resources provided on campus and through the athletic department. Information on wellness topics, career development and other topics are provided.



Example: LB Athletics Network Page Criterion 1.3.1

- <u>Heading elements are not used to style content</u>
- The text in the box was labeled as h5 when it should have used the (paragraph) text format.



Example: CSULB Psychology page 1.3.1 Info and **Relationships**: Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text.

• Checkpoint H51: <u>Using table markup to present tabular</u> <u>information</u>

Simple tables: First row has TH elements. Complex tables: First row and column have TH elements. No blank TH elements.

- **STEP 1:** Using either WAVE or ANDI, check that the applicable table rows on the content page have TH elements. If TH elements are not present, mark this checkpoint as "Fail."
- However, if the table is used as styling and it is set as role = presentation the user should be notified.
 - This will not fail the checkpoint, in this situation you will mark as N/A staying that the tables were used to style content.

Date	Event	Venue
12 February	Waltz with Strauss	Main Hall
24 March	The Obelisks	West Wing
14 April	The What	Main Hall

For simple tables, the first row should have the TH element mark-up (Date, Event, Venue)

	Monday	Tuesday	Wednesday	Thursday	Friday
09:00 - 11:00	Closed	Open	Open	Closed	Closed
11:00 - 13:00	Open	Open	Closed	Closed	Closed
13:00 - 15:00	Open	Open	Open	Closed	Closed
15:00 - 17:00	Closed	Closed	Closed	Open	Open

For complex tables, the first row and first column should have the TH element mark-up. (Monday – Friday and 9:00-11:00, 11:00-13:00, 13:00-15:00, 15:00-17:00) Example of 1.3.1 checkpoint: Using table markup to present tabular information 1.3.1 Info and **Relationships**: Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text.

• Checkpoint H63: <u>Using the scope attribute to associate header</u> <u>cells and data cells in data tables</u>

Tables use scope="col" and scope="row"

• **STEP 1:** Using either WAVE or ANDI, check that the scope attribute is used for any tables on the content page. If the scope attribute is not used, mark this checkpoint as "Fail." ***If the tables are simple, scope attributes are not necessary.*

Date	Event	Venue
12 February	Waltz with Strauss	Main Hall
24 March	The Obelisks	West Wing
14 April	The What	Main Hall

For simple tables, the first row should have scope = Col mark up (Date, Event, Venue)

	Monday	Tuesday	Wednesday	Thursday	Friday
09:00 - 11:00	Closed	Open	Open	Closed	Closed
11:00 - 13:00	Open	Open	Closed	Closed	Closed
13:00 - 15:00	Open	Open	Open	Closed	Closed
15:00 - 17:00	Closed	Closed	Closed	Open	Open

For complex tables, the days of the week should have scope = col (Monday – Friday) and the time slots should have scope = row element mark up. (9:00-11:00, 11:00-13:00, 13:00-15:00, 15:00-17:00) Example of 1.3.1 checkpoint: Using the scope attribute to associate header cells and data cells in data tables

- <u>Simple tables: First row has TH elements. Complex tables:</u> <u>First row and column have TH elements. No blank TH</u> <u>elements.</u>
- NA There are no tables on the LB Athletics Network webpage.
- <u>Tables use scope="col" and scope="row"</u>
- NA There are no tables on the LB Athletics Network webpage.

Example: LB Athletics Network Page Criterion 1.3.1
1.3.1 Info and **Relationships**: Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text.

• Checkpoint G57: Ordering the content in a meaningful sequence

Ensure content that needs to be hidden from all users is hidden from assistive technology users

- **STEP 1:** Run the WAVE tool on the page.
- **STEP 2:** Toggle off "Styles" to remove the CSS styling on the page. Check for flow of content without CSS styling.
- **STEP 3:** Using JAWS, ensure that any content that was hidden via CSS styling is not read out loud.
- ANDI can also be used to detect hidden content



- <u>Ensure content that needs to be hidden from all users is</u> <u>hidden from assistive technology users</u>
- Fail CSS styling is used to hide content from the page, per WAVE and ANDI evaluations, and toggling off the styling shows content that affects flow of content. JAWS does not read this information.

🔟 🌄 About Us

h2

The LB Athletics Network was built specifically for our current and alumni studentathletes to have access to robust and diverse services and career opportunities to keep them informed and connected. Long Beach State Athletics is committed to providing student-athletes the opportunity to develop holistically as individuals, pursue positive opportunities and develop confidence in their abilities as they face the future. • "About us" is repeated further down the page.

Example: LB Athletics Network Page Criterion 1.3.1

 hANDI
 hidden content→
 reveal all Q
 | css hiding techniques →

 I
 ►I
 Element: <div>
 1 position:absolute Q

 Hiding Technique: display:none;
 2 html5 hidden Q

Hidden Elements: 10

1.4.4 Resize text: Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss of content or functionality

• Checkpoint G197: Ensuring that there is no loss of content or functionality when the text resizes and text containers do not change their width

Content is scalable to 200% without any loss of information or functionality. Texts does not overlap or become unavailable.

- **STEP 1:** Set the window size to 1024 x 768 with Windows Resizer.
- **STEP 2:** Use the "Zoom" function in the browser settings (or hold down the ctrl key and press "+") and zoom in to 200%.
- **STEP 3:** Ensure the text scales with the zoom and is not cut off, or requires horizontal scrolling. If the text does not scale properly and/or the horizontal scroll bar is present, mark this checkpoint as "Fail."
- **STEP 4:** Tab through the web page and ensure every element receives focus. If an element does not receive focus, mark this checkpoint as "Fail."
 - If an element is non-responsive or is skipped (but should not have been skipped) this would fail the checkpoint

- <u>Content is scalable to 200% without any loss of</u> <u>information or functionality. Texts does not overlap or</u> <u>become unavailable.</u>
- At 200% zoom with a window size of 1024 x 768, the text on the web page scales appropriately and does not require horizontal scrolling. However, when tabbing through the web page, the hamburger menu does not receive focus.

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LB Athletics Network

The new location for all of the services offered to current and former LBSU student-athletes. Example: LB Athletics Network Page Criterion 1.4.4 2.2.2 Pause, Stop, Hide: Moving, scrolling and/or blinking content must have mechanism to pause or stop the movement.

• Checkpoint G4: <u>Allowing the content to be paused and restarted</u> <u>from where it was paused</u>

Any moving, blinking or scrolling content can be paused.

- **STEP 1:** Check for any moving, blinking, or scrolling content on the page
- **STEP 2:** If there is such content, ensure these contents can be paused. If the contents cannot be paused, mark this checkpoint as "Fail." ***If there is no moving, blinking, or scrolling content, mark this checkpoint as "NA"*

Any moving, blinking or scrolling content can be paused.

• The Ocelot website has icons that are floating across the page that cannot be paused or stopped. This would fail the checkpoint.



Example: Ocelot website Page Criterion 2.2.2 2.4.2 Page Titled: Web pages have titles that describe topic or purpose. • Checkpoint G88: <u>Providing descriptive titles for Web pages</u>

Page title is unique to each page and the title provides site name, page name or the purpose of the page.

- **STEP 1:** Check the title in the browser tab. If the title is too long, mouseover the tab.
- STEP 2: Go to another page of the website (e.g., Register or Login page) and check if the title is different. If the title is unique to the page, mark this checkpoint as a "Pass." If the titles are the same, mark this checkpoint as a "Fail."

Page title is unique to each page and the title provides site name, page name or the purpose of the page.

• The page title in this example is "About CSULB" and on the tab, it also states "About CSULB"



Example: LB Athletics Network Page Criterion 2.4.2

2.4.4 Link Purpose (In Context): The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context.

• Checkpoint G91: Providing link text that describes the purpose of a link

Link name has either the page name or the purpose of the page being linked to.

• **STEP 1:** Check that the link names on the page are descriptive enough to indicate where the user will be taken. WAVE or ANDI will indicate if there is an "empty" link or link without an accessible name.

No "Click here" link name

• **STEP 1:** Check that none of the links on the page or in the content have "click here" as the link name. WAVE or ANDI will also indicate if there is a suspicious link.

Link name has either the page name or the purpose of the page being linked to.

• WAVE shows the alt attribute names of the linked images



Example: Checkpoint G91

2.4.4 Link Purpose (In Context): The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context.

Link names that go to different location are not the same.

• **STEP 1:** If there are identical link names on the page, check that the links do not go to different locations. WAVE or ANDI will indicate if there are any links that fit this criterion.

Two adjacent links go to the same URL.

- **STEP 1:** Check that links adjacent or near each do not go to the same URL. WAVE or ANDI will indicate if there are links that fit this criterion.
- WAVE and ANDI will give alerts for redundant and/or ambiguous links on the page.



What It Means Adjacent links go to the same URL.

Link Alerts: (3)

- 1. A Ambiguous Link: same name/description as another link but different href.
- 2. A Ambiguous Link: same name/description as another link but different href.
- 3. A Ambiguous Link: same name/description as another link but different href.

2.4.4 Link Purpose (In Context): The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context.

Checkpoint H₃o: <u>Providing link text that describes the purpose of a link for anchor elements</u>

Images that are linked must have a meaningful alt attribute.

• **STEP 1:** Using WAVE or ANDI, check that all linked images have a descriptive alt attribute.

Link name has either the page name or the purpose of the page being linked to.

• The Facebook and Twitter links appear as icons and do not have an accessible link name.



No "Click here" link name

- None of the links on the LB Athletics Network page are labeled "Click here."
- Images that are linked must have a meaningful alt attribute.
- There are no linked images on the page.

Example: LB Athletics Network Page Criterion 2.4.4 2.4.6 Headings and Labels: Headings and labels describe topic or purpose.

• Checkpoint G130: <u>Providing descriptive headings</u>

Page contains heading elements and they are clear and descriptive.

• **STEP 1:** Using WAVE or ANDI, check that that the heading elements are present, and that they clear and descriptive for the corresponding section of the page.

- <u>Page contains heading elements and they are clear and</u> <u>descriptive.</u>
- Each heading gives a clear description of what the content contains.



Example: Descriptive Headers found on the W₃C website

1.4.3 Contrast (Minimum): The visual presentation of text and images of text has a contrast ratio of at least 4.5:1

• Checkpoint <u>G18: Ensuring that a contrast ratio of at least 4.5:1 exists</u> between text (and images of text) and background behind the text

Color contrast between the text and the background.

- **STEP 1** Use WAVE tool and ANDI for color contrast checks to analyze the text to background or image to background to make sure it meets the standards.
 - Colour Contrast Analyser can be used to analyze as well. Manual check can be done on colors combinations that look like it would be below the minimum contrast ratio. There are occasions where WAVE may not detect the poor color contrast.
- **STEP 2** Based on the two color combinations, check the contrast ratio given and compare the given contrast ratio to the WCAG requirements. (Must be greater than 4.5:1 to pass for normal text and must be greater than 3:1 for large text)
- Normal Text Minimum Contrast Ratio
 - WCAG AA: 4.5:1
 - WCAG AAA: 3:1
- Large Text Minimum Contrast Ratio
 - WCAG AA: 7:1
 - WCAG AAA: 4.5:1

- WAVE Indicated that the "About Us" has a low color contrast.
- Checking with the Colour Contrast Analyzer showed that the contrast ratio is 2:1 which fails the WCAG requirements for color contrast.





Example: LB Athletics Network Page Criterion 1.4.3 3.2.3 Consistent Navigation: Navigational mechanisms that are repeated on multiple Web pages within a set of Web pages occur in the same relative order each time they are repeated, unless a change is initiated by the user.

• Checkpoint <u>G61: Presenting repeated components in the same</u> relative order each time they appear

For each navigational section (e.g. main, left), link elements are in the same order throughout site or sub-sites.

• **STEP 1** Check that the navigation options are in the same order and in the same location when visiting different pages of the website.

• The navigation bar on the LB Athletics page showed the same order even when the navigation bar had to be condensed in a smaller window size. On the "Login" page, the navigation bar appears in the same location and order as well.

≡	Contact Us	Our Team	Resources	Careers	About Us
About Us					
Careers					
Resources					
Our Team					
Contact Us					

Example: LB Athletics Network Page Criterion 3.2.3

4.1.2 Name, Role, Value: Provides role, state, and value information on all user interface components.

- <u>ARIA4</u>: <u>Using a WAI-ARIA role to expose the role of a user interface</u> <u>component</u>
- <u>ARIA5: Using WAI-ARIA state and property attributes to expose</u> the state of a user interface component
- Menus link elements indicate there is an attached submenu.
- States: aria-haspopup and aria-expanded are used.
 - Aria-expanded = true means that the drop-down menu is open
- If using aria-expanded, the state changes when open or closed.
- <u>Menubar, menu and menuitem roles are not used for website</u> <u>navigation menus.</u>
- **STEP 1**: Use WAVE, ANDI and JAWS to see if the ARIA elements used for menus are valid.

- This ARIA should be present for drop-down menus. WAVE can be used to help detect if this is present.
 aria-expanded should be set to false when the drop-down menu is not activated.
- - It should change to True when the dropdown menu is expanded
 In this example, the drop-down menu is not open which is why
 - aria-expanded = false.



ARIA popup

An element triggers a popup menu, dialog, or other element.

REFERENCE

CODE

_22SL37yETIW414yUiZj27w"> <i class="_3-IF5kPDkSGfnVUW_GtvUV icon icon-user"></i>

Example: **ARIA**-haspopup and **ARIA**-expanded

ARIA Roles, States, and Properties: Provides a way to make content and applications more accessible.

<u>W3C ARIA Overview</u>

- ARIA roles, states and properties are used correctly.
- **STEP 1:** Use WAVE to check the ARIA elements on the page. WAVE will flag any broken ARIA references, but otherwise the elements need to be checked manually.



Form Criterion

3.3.2 Labels or Instructions: Labels or instructions are provided when content requires user input.

• Checkpoint <u>H44: Using label elements to associate text labels with</u> form controls

Form fields have associated labels (e.g. label element, aria-label).

- **STEP 1** Check if the label element identifies what needs to be inputted or selected and should match field data requirement
- **STEP 2** Check that the attribute for the label of the element matches the input, textarea, or select element
- **STEP 3** Check to see if the label element is visible if not visible make sure the ARIA label is correct.
- Use WAVE and ANDI to check

A form label is associated wit	s present and h a form control.	message with your order number and we'll get back to
REFERENCE	CODE	
	Your Name * 💽	Email * 💽
	Name	Email
	Message * 💽	
	I have a question	n with

Example for 3.3.2 - Using label elements for form fields WAVE is used to detect if there are form fields found on the LB Athletics website. That the form fields have a form label associated with a form control. 3.3.2 Labels or Instructions: Labels or instructions are provided when content requires user input.

• Checkpoint <u>H71</u>: Providing a description for groups of form controls using fieldset and legend elements

Radio buttons and/or checkboxes should have an associated fieldset and legend.

- **STEP 1** Check that the group of logically related input or select elements are contained within fieldset elements.
- **STEP 2** Check that each fieldset has a legend element that includes a description for that group.



Example for 3.3.2 - Providing description for groups of form controls using fieldsets and legend elements. In this scenario, there is a fieldset present, and it defines the yes and no radio buttons 3.3.2 Labels or Instructions: Labels or instructions are provided when content requires user input.

- Checkpoint <u>G89: Providing expected data format and example</u>
- Instructions or formatting for input fields is provided by a label (e.g. label element, aria-labelledby or aria-describedby).
- **STEP 1** Identify form controls that will only accept user input data in a given format.
 - Purposely input information incorrectly to see if the form field can detect the errors made.
- **STEP 2** Determine if each of the form controls identified in 1 provides information about the expected format.
 - Check to see if the incorrect fields are detected.
 - See if any instructions on how to input the information correctly is provided.

• Entering an email requires the "@" symbol and "." but this form does not check for valid addresses

Email

emailhere

Your email address does not follow the standard format of an email address. Confirm Email

Email emailhere@something.com Example: LB Athletics Network Page Criterion 3.3.2 3.3.2 Labels or Instructions: Labels or instructions are provided when content requires user input.

- Checkpoint <u>H90: Indicating required form controls using label or</u> <u>legend - Screen readers announce the field is required.</u>
- <u>Required form field indicate they are required.</u>
- <u>If using an asterisk for required, ensure there is text before the</u> form indicating what the asterisk is for.
- <u>Screen reader: aria-required="true" has been added.</u>
- **STEP 1** Use WAVE to run a report of the page.
- **STEP 2** Check if there are any errors that appear.
- **STEP 3** Use JAWS to see if the screen reader can detect the form.
 - When an error occurs JAWS should read out which field form has the error and provide a solution on how the error can be resolved.

- In this example, WAVE detected that it was missing a label form, but
- Login and password input fields do not need to have required since it is implied.
- Don't forget: If using an asterisk for required, ensure there is text before the form indicating what the asterisk is for.

web accessibility evaluation tool	60
Styles: OFF DN	ng #GoBeach
Details	
↑ Image: Constraint of the second seco	Join the network nowarrow_forward aria "role="img" 😥
 Z 14 Errors ⊘ 8 X Missing alternative text Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q	f Get in touch
☑ 3 X Missing form label	Send us a message, we would love to hear from you!
☑ 1 X Language missing or invalid (●)	Enter full name
☑ 2 X Empty link	Enter Email
O 20 Contrast Errors 20 X Very low contrast	

Example: LB Athletics Network Page Criterion 3.3.2

3.3.1 Error **Identification:** If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text.

- <u>G83: Providing text descriptions to identify required fields that</u> were not completed
- <u>Users are notified when a required field is missed or a field has</u> incorrect data.
- **STEP 1:** Fill out a form incorrectly or leave some portions blank
- **STEP 2:** Check that a text description is provided identifying the mandatory field(s) that was not completed.
- **STEP 3** Check that other data previously entered by the user is re-displayed, unless the data is in a security related field where it would be inappropriate to retain the data for re-display (e.g. password).
- After submitting the form: Ensure that the focus moves to the first field that indicates there is an error and that error is rendered by the screen reader.

Google	Google
Sign in	Sign in
to continue to Gmail	to continue to Gmail
Email or phone	Email or phone
Forgot email?	Enter an email or phone number Forgot email?
Not your computer? Use a Private Window to sign in. Learn more	Not your computer? Use a Private Window to sign in. Learn more
Create account Next	Create account Next

Example: Gmail Criterion 3.3.1 (G83)

• In this example, an input error is detected and notifies the user that this email form cannot be blank.

3.3.1 Error **Identification:** If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text.

<u>ARIA21: Using Aria-Invalid to Indicate An Error Field</u>

- When an error occurs, aria-invalid changes to true, if used.
- **STEP 1:** Check that aria-invalid is not set to true when a validation failure does not exist.
- **STEP 2:** Check that aria-invalid is set to true when a validation failure does exist.
- **STEP 3:** Check that programmatically associated labels / programmatically associated instructional text for the field provide enough error information to users.



- Aria-invalid is not set to true when there are no validation failures.
- Aria-invalid is set to to true when there are validation failures.
- The *aria-describedby* label provides enough error information for screen-reader (JAWS) users.

Example: LB Athletics Website Criterion 3.3.1 (ARIA21) 3.3.1 Error Identification: If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text.

- <u>G85: Providing a text description when user input falls outside</u> the required format or values
- Error messages are communicated to screen reader users.
- **STEP 1:** Fill out a form and deliberately enter text which does not match the required format or values
- **STEP 2:** Use JAWS to check that a text description identifies the field with the error, provides some information about it, and suggests how to fix it.
- **STEP 3:** Check that other data previously entered by the user is re-displayed, unless the data is in a security-related field where redisplaying the data would be inappropriate (e.g. a password).
| Email Please enter a valio Email. Password is not valid. Phone number is not valid. First and Last Name * a | Please correct the following errors: Email Please enter a valid Email. Password is not valid. Phone number is not valid. First and Last Name * | |
|---|--|--|
| Email é | a | ~ |
| asda !
Please enter a valid Email.
User ID * | asda Please enter a valid Email. User ID * reag | |
| reag 🗸 | Password * | Passwords must be between:
\checkmark 10 - 26 characters long |
| | Show | Also, must include three of the follow |
| Password * | Please enter a valid password | One lowercase letter One uppercase letter |
| Password * Show ! | For your security, please do not include any profile information in your password. Phone | One number |
| Password * Please enter a valid password. For your security, please do not include any profile information in your password. Phone | Freque enter a value passion.
For your security, please do not include any profile information in your password.
Phone
US +1
Invalid Phone number | One number One special character (!@#\$%*) Passwords cannot contain your first last name, UPS user ID, or email ad |

Example: Criterion 3.3.1 (G85)

• On UPS.com, JAWS reads the suggestions listed for inputting a password correctly.

1.4.1 Use of **Color:** Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

• <u>G205: Including a text cue for colored form control labels</u>

Color in association with text indicate an invalid form field.

- **STEP 1:** Interact with the form and see if there are any other elements besides color to indicate that you are interacting with the section.
- Check for color contrast between text indicator (or item indicator). If the ratio is not sufficient, this checkpoint is a fail.

• Clicking on "First Name" will turn the form blue and have the line move to indicate that this section is active.

REGISTER	First Name
First Name	
Last Name	Last Name
Email	Email
Confirm Email	Confirm Emai
Password	Password
Next	

First Name

Last Name

Email

Confirm Email

Password

Example: LB Athletics Network Page Criterion 1.4.1 (G205)

Video & Audio Criterion 1.2.2 Captions (Prerecorded): Captions are provided for all prerecorded audio and video and is clearly labeled as such.

• <u>G87: Providing closed captions</u>

Audios and videos have closed captioning

- **STEP 1:** Check to see if closed captioning is available.
- **STEP 2:** Turn on closed captioning to check if it is functioning correctly.
 - **The closed captioning function must be adjustable by keyboard controls to pass

DEPARTMENT INFORMATIONAL VIDEO



Example: Criterion 1.2.2 (G87)

• This video on the CSULB Psychology website displays closed captions correctly.

1.4.2 Audio **Control:** If any audio on a web page that plays automatically can be paused or stop or control the volume.

• **G171: Playing sounds only on user request**

- The audio of a video is muted on download.
- **STEP 1:** If the video can be downloaded, ensure that the audio is muted.
 - **Make sure that videos which play automatically are muted when they begin. It is acceptable for the video to play as long as the audio is muted.



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. Smart Utilities | Versatile utensils and gadgets for every home #203 2 2 2 Smart Utilities | Versatile utensils and gadgets for every home #203 🛃 ... See more



...

Example: Criterion 1.4.2 (G171)

• This Facebook video plays automatically when it appears on the screen. However, the video audio is muted.

2.1.1 Keyboard: All functionalities must be accessible and operable to users using a keyboard.

<u>G202: Ensuring keyboard control for all functionality</u>

Video player: All controls can be accessed by the keyboard.

- **STEP 1:** Check if the video can be accessed by pressing the tab key.
- **STEP 2:** Check if the video can be started & paused by pressing the spacebar.
 - Also check to see if video controls (e.g. volume, video resolution, captions) can be modified by using the arrow keys.



2.4.6 Headings and Labels: Headings and labels describe topic or purpose.

<u>G131: Providing descriptive labels</u>

- Video player: All controls are named and provide the purpose.
 - **This also includes podcast players.
- **STEP 1:** Use WAVE, ANDI, and JAWS to check for proper headings and labels.
 - With JAWS, check that the name for each control is announced.



- WAVE displays video headings and labels through ARIA.
 - Turning styles off makes these labels easier to identify

Example: Criterion 2.4.6 (G131)

Modal Window Criterion 2.4.3 Focus **Order:** Active elements receive focus in a logical order that preserves meaning and operability.

Focus moves to the first element in the modal (e.g. close button, above the first heading element).

• **STEP 1:** After opening a modal window, press the tab key to see if the focus moves to the first element.

<u>Keyboard focus does not move to the background elements, but</u> <u>stays within the modal. In addition, the focus is not trapped in the</u> <u>modal.</u>

• STEP 2: Press the tab key through all modal window elements. Ensure users are able to exit the modal window (e.g., via the close button or escape key) and that the focus returns to the first element after going through all elements. 2.4.3 Focus **Order:** Active elements receive focus in a logical order that preserves meaning and operability.

Focus is returned to triggering event.

• **STEP 3:** After exiting the modal window, check that the focus is on the link or button that opened the modal.

		Home 🗸	Pages ~	Works v	Blog v	Shop -	Starter 9
	Ple	ease sign in		×			
۵	Email	manage your accou					
_	Password						
Rer	nember Me		Forgot P	assword?			
		Signin					
	Do not he	or o	nup	ittor			
1	Signin with Faceboo	K y si	gnin with Tw	itter			

Example: Criterion 2.4.3

- The highlighted box represents a modal window.
 - This window is opened by clicking the green *Sign In* button at the top right portion of the webpage.
- The X on the top right of the modal window should be the first element highlighted.

2.4.4 Link Purpose: The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context.

• <u>H33: Supplementing link text with the title attribute</u>

Link element indicates it opens a modal window.

• **STEP 1:** Look for anchor elements in the source code. For each anchor element with a title attribute, check that the title attribute and the link text describe the purpose of the link.

• Use WAVE and ANDI



		×
Login By continuing, you agree to our User Agreement and Privacy Policy.		
-,,,	Cr.	
G CONTINUE WITH GOOGLE		
CONTINUE WITH APPLE		
OR		
USERNAME		
PASSWORD .		
Log In		
Forgot your username or password?		
New to Reddit? SIGN UP		

- The Log In button opens a modal window where the user can log onto their account.
 - Therefore, this button correctly describes the modal window that it opens.

Example: Reddit Criterion 2.4.4 (H33)

Miscellaneous Criterion 1.1.1 Non-text **Content:** All non-text content that is presented to the user has a text alternative that serves the equivalent purpose.

• <u>G92: Providing long description for non-text content that</u> <u>serves the same purpose and presents the same information</u>

Charts and line graphs data is conveyed to screen reader users.

Long description is displayed or positioned off screen.

- **STEP 1:** If a chart is presented on the screen, check to see if a description of that chart is also presented.
 - Use JAWS to see if the text can be detected by screen readers.
- **Pass** JAWS can detect the text alternative.
- Fail JAWS cannot detect the text alternative.



This line graph shows the average score of different subjects by year. The year 3 scores were overall the highest.

Example: Criterion 1.1.1 (G92)

• A non-text content should have a description that can be read by the screen reader. The description may not always be visible, but as long as the screen reader detects it, this will pass the checkpoint.

1.4.1 Use of **Color:** Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

• <u>G14: Ensuring that information conveyed by color differences is</u> <u>also available in text</u>

<u>Color is not the sole method for conveying information.</u>

- **STEP 1**: Check if the item is conveyed in a different color.
 - Check if there are other elements to help identify it (e.g. a different font, font size, bolded/underlined/highlighted text).
- If color is the only visual distinction, then a website fails this checkpoint.

		Log in	
Phone		Log in w	vith email or username
CA +1	•	g	

- Color is not the only method of conveying information.
 - A suggestion to fix incorrect form information is offered through text.

Example: TikTok Criterion 1.4.1 (G14) 2.3.1 Three **Flashes or** Below Threshold: Web pages do not contain anything that flashes more than three times in any one second period.

• <u>G19: Ensuring that no component of the content flashes more</u> than three times in any 1-second period

Content flashing at rates that can cause seizures.

- **STEP 1:** Check that there are no content flashes more than three times during any 1-second period.
- **STEP 2:** If any content has three flashes, check that the Light/Dark status at the beginning and end of any 1-second period is the same.
- <u>Pass</u> If there are no flashes or the flashes are no more than three flashes during any 1-second period.
- Fail There are more than three flashes during a 1-second period.

• Examples of 3.5 flashes or seven transitions:

- STARTING DARK-LIGHT-DARK-LIGHT-DARK-LIGHT or
- STARTING LIGHT-DARK-LIGHT-DARK-LIGHT-DARK-LIGHT-DARK.



• Since the light/dark status of this flashing content at the beginning and end of a 1-second period is not the same, it would fail this checkpoint.

Mockup Example: Criterion 2.3.1 (G19) 2.2.1 Timing Adjustable: Provides users with disabilities are given adequate time to interact with web content. (e.g. inactivity time, questions on test, online ticket-purchasing)

• <u>G198: Providing a way for the user to turn the time limit off</u>

Mechanism to turn off any time limits near the top of the page.

- **STEP 1:** Check that there is a mechanism to turn off any time limits near the top of the page.
- **STEP 2:** Verify that the time limit for the page is long enough for the user to easily navigate to the mechanism even if they are 10 times slower than most users.
- Time limits should be easily adjustable (*e.g. extended or turned off*)

2.2.1 Timing Adjustable: Provides users with disabilities are given adequate time to interact with web content. (e.g. inactivity time, questions on test, online ticket-purchasing)

- **<u>Pass</u>** there is an option to adjust the time limit.
- Fail there is no option to adjust the time limit.
- Exceptions from this criterion:
 - Real-time actions (e.g. auctions)
 - Essential activities which would be invalidated with extended timing (e.g. exams on BeachBoard)
 - The time limit exceeds 20 hours.

30	CORRECT	W	RONG D		(SCORE (")1:55
Milwaukee	Louisville	Providence	Des Moines	Indianap	polis Kan	sas City	Denver	Dover
Chicago	Salem	os Angeles	Nashville	Botte Tre	enton	attle	olumbia	Miami
Albuquerque	Cincinnat	Salt Lake	City Jackso	Oklah	oma City	Montgome	Ne	w Orleans
Bismarck	Little Rock	Charleston	Charlotte	New York C	Hartfo	Mir	neapolis	Lincoln
Baltimore	Phoenix	Dallas	hmond Atla	anta Las	Vegas	oncord	Helena	Detroit
Pittsburgh	Honolulu	Anchorage	Cheyenne	Pierre	Montpelier	Jeffers	on City	Boston



Example: Criterion 2.2.1 (G198)

- The timer for this quiz can be paused.
 - It can also be changed to a stopwatch.