CSUSB Web Accessibility Guidelines

Adopted from CSU ATI Accessibility Requirements, WCAG 2.0 (Level A and AA)* for use at California State University, San Bernardino

* CSUSB adopted one AAA item from WCAG 2.0, Link Purpose (Link Only), Understanding SC 2.4.9: A mechanism is available to allow the purpose of each link to be identified from link text alone, except where the purpose of the link would be ambiguous to users in general. (Level AAA)

Table of Contents

Understanding the Four Principles of Accessibility

The guidelines and success criteria are organized around the following four principles, which lay the foundation necessary for anyone to access and use digital content.

Content must be:

Perceivable - Information must be presented to users in ways they can perceive; it cannot be invisible to all of their senses.

- Provide **text alternatives** for non-text content.
- Provide **captions and other alternatives** for multimedia.
- Create content that can be **presented in different ways**, including by assistive technologies, without losing meaning.
- Make it easier for users to **see and hear content**.

Operable - User interface components and navigation must be operable; the interface cannot require interaction that a user cannot perform.

- Make all functionality available from a **keyboard**.
- Give users **enough time** to read and use content.
- Do not use content that causes **seizures**.
- Help users **navigate and find content**.

Understandable - Information and the operation of user interface must be understandable.

- Make text **readable and understandable**.
- Make content appear and operate in **predictable** ways.
- Help users **avoid and correct mistakes**.

Robust - Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies. Users must be able to access the content as technologies advance.

- Maximize **compatibility** with current and future user tools.

Guidelines

The following requirements are used to determine a website's accessibility.

Section A – Text Alternatives

All non-text content that is presented must have a text alternative that serves the equivalent purpose. Screen reading software will not read alt attributes longer than 150 characters, including spaces.

Images with complex information such as banners, charts, or diagrams must provide a short text alternative and use one of the following techniques listed below in order to provide the same information and/or sensory information to the user.

- All non-text content that is presented to the user has a text alternative that serves the equivalent purpose. (WCAG 2.0 Reference G94 and ARIA10, G196, H36 or H37)
- Images that convey complex content have equivalent text content elsewhere on the page or use one of the following techniques. **(CSU ATI Requirement** 2.1a, WCAG 2.0 Reference G95 and ARIA10, ARIA15, G73, G74, G92, or H45)
- If non-text content is pure decoration, is used only for visual formatting, or is not presented to users, then it is implemented in a way that it can be ignored by assistive technology (alt="" or placed in the CSS). (WCAG 2.0 Reference H67)
- Images that convey information may not be placed in the CSS. (WCAG Reference F3)
- Each <applet> and <object> element should provide a text alternative. (WCAG Reference H35 or H53 or ARIA6)
- Embed elements should use the <noembed>element. (WCAG 2.0 Reference H46)

Recommended:
- Text is used to convey information rather than images. (WCAG 2.0 Reference 1.4.5)
- Purely decorative images should be placed in the CSS. (WCAG Reference C9)

Section B – Multimedia

Digital content produced by the university should meet Section 508, WCAG 2.0 A and AA standards.
- Captions provided for Video. (WCAG 2.0 Reference G87, G93)
- Transcripts provided for audio. (WCAG 2.0 Reference G151)
- When an audio clip plays for more than 3 seconds, a mechanism should be provided to pause, stop or mute the audio, independent from lowering the system volume. (WCAG 2.0 Reference G60, G170 or G171)
- Users should be able to determine what the non-text content is about when the non-text content is time-based media and/or a live event. **(CSU ATI Requirement** FLASH, WCAG 2.0 Reference 1.1.1-Non-text Content and G68, G100, G158, G159, G166)

Recommended:
- Captions are provided for all live audio content in synchronized media. (WCAG 2.0 Reference G9 and G93 or G87)
- Audio descriptions should be provided for prerecorded video. (WCAG 2.0 Reference G69, G78, G173, G8 or G203)

Section C – Color
- Contrasts between foreground and background colors should have an accessible luminosity contrast ratio. (4.5:1 ratio if text is less than 18 point if not bold and less than 14 point if bold or 3:1 ratio if text is at least 18 point if not bold and at least 14 point if bold. (WCAG 2.0 Reference G18 or G145)
- Information conveyed by color should also be conveyed by context, markup, graphic coding, or other means. (WCAG 2.0 Reference G14, G117, G138, G182, G183)
- Background and foreground colors must be specified in the code. (**CSU ATI Requirement** and WCAG 2.0 Reference G148 and F24)

Section D - Information & Relationships
Information, structure, and relationships conveyed through presentation can be programmatically determined or are available. CSUSB requires the use of ARIA landmarks to identify regions of a page in order for a disabled user to orient themselves to a page and help them navigate to the various section of a page.

- With all styles disabled, is color and font information rendered in the browser's default style. (WCAG 2.0 Reference G140)
- Semantic elements should be used appropriately to mark up the structure of web content or is another technique used to make the same information accessible. (WCAG 2.0 Reference G115, and H49, and G117)
- ARIA landmark are used to identify regions of web pages. (**CSUSB Standard** WCAG 2.0 Reference ARIA 11 or ARIA 13 and H97)
- List elements should be used appropriately. (WCAG 2.0 Reference H48)

Recommended:
- Information conveyed by shape, size, visual location, orientation, or sound should have instructions for understanding the content.   (WCAG 2.0 Reference G96)

Section E - Server Side Image Maps
- Redundant text links shall be provided for each active region of a server-side image map. (**CSU ATI Requirement**)

Section F - Client Side Image Maps
- Image map area alt-text should describe the link destination correctly. (WCAG 2.0 Reference H24)

Section G - Data Tables
- For data tables are <th> elements used in the first row and/or first column, if applicable. (WCAG 2.0 Reference H51)
- The <th> elements must contain the scope (="col" or ="row") attribute. (WCAG 2.0 Reference H63)
- If a data table has a title, it should be contained in the <caption> element. (WCAG 2.0 Reference H39)

- The <th> or <caption> elements, or the summary attribute should not be used for layout tables. (WCAG 2.0 Reference F46)
- HTML layout tables should make sense when linearized. (WCAG 2.0 Reference F49)

Section H - Complex Data Tables

Summary attributes should be used on complex data tables and provide a deeper explanation of what the table contains and how it is organized.

- Complex data tables should use id and headers attributes to associate data cells with header cells. (WCAG 2.0 Reference H43)
- The summary attribute should be used to briefly explain how to navigate the complex data table. (WCAG 2.0 Reference H73)
- The summary attribute if used, should not duplicate the <caption> element. (WCAG 2.0 Reference H73)

Section I – Frames

- Each <frame>, <iframe> element should have a meaningful title attribute. (WCAG 2.0 Reference H64)
- Each <frame> element should have equivalent content in a <noframe> element for user agents that do not support frames. **(CSU ATI Requirement)**

Section J – Movement

- Page should not contain a <marquee> element. **(CSU ATI Requirement)**
- Users should have a mechanism to pause, stop or hide anything moving, blinking or scrolling, that starts automatically and does not stop in less than 5 seconds. (WCAG 2.0 Reference G4, G11, G186, F4, F7, F16, F47, or F50)
- Elements should not flash more than 3 times in any 1-second period, unless the flash is below the general flash and red flash thresholds (WCAG 2.0 Reference G19, G15 or G176)

Section K - Text Only

- Web pages should not have a text-only version. (WCAG 2.0 Reference F19)

Section L – Scripts

- Information provided by a script should be interpreted by assistive technology. **(CSU ATI Requirement)**

Section M - Plug-ins

- Links should be provided to any special readers or plug-ins that are required to interpret page content. **(CSU ATI Requirement)**

Section N - Form

Text Alternatives

- Images used as submit buttons should have a descriptive alt attribute. (WCAG 2.0 Reference G82 and H36,)

- If used, CAPTCHA should be provided in multiple modalities on the same page. (WCAG 2.0 Reference G144)
- If used, CAPTCHA should have a text alternative describing the purpose of the CAPTCHA. (WCAG 2.0 Reference G143)

Adaptable (information and structure)

- Form controls should use <label> elements to associate text labels and, when the <label> element cannot be used, utilize title attributes. (WCAG 2.0 Reference H44, H65, ARIA9)

- The <fieldset> and <legend> elements should be used appropriately to order form controls, if applicable. (WCAG 2.0 Reference H71, H90)
- The <optgroup> element should be used appropriately to group related options, if applicable. (WCAG 2.0 Reference H85, ARIA17)

Navigable

- The tab order to reach the form and the tab order between form elements should be consistent with the logical order of entering form data. (WCAG 2.0 Reference C27, G59 or H4)

Predictable

- A change of context should not occur when an element on the page receives focus. (WCAG 2.0 Reference G107)
- Users should be advised of the behavior of a component when a user interface component automatically causes a change of context. (WCAG 2.0 Reference G80)
- If a page component contains associated text, it should be consistent for each user interface component with the same function. (WCAG 2.0 Reference G197 and F31)

Input Assistance

- Labels or text instructions should be provided when content requires user input. (WCAG 2.0 Reference ARIA21, G131 and one of the following G89, G184, G162, G83, or H90)
- Required fields should be identified to the user. (WCAG 2.0 Reference ARIA21, H92, H90, G184, G83, SCR18, SCR32)
- Input that needs to be formatted in a specific manner should have an example of that format provided. (WCAG 2.0 Reference ARIA21, G84, G85, G89, SCR18, SCR32)

- When input is invalid, detailed text description of each invalid item should be provided. (WCAG 2.0 Reference ARIA2, ARIA18, ARIA21, G83, G84, G85, SCR18, SCR32)

3.3.4 Error Prevention (Legal, Financial, Data):

Reversible: Submissions are reversible.

Checked: Data entered by the user is checked for input errors and the user is provided an opportunity to correct them.

Confirmed: A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission.

- If the web page causes a legal/financial/data transaction, there should be a mechanism for the user to review, change the information or cancel the request. (WCAG 2.0 Reference G164, G98 or G155)
- If the web page causes a legal/financial/data transaction and an action will cause information to be deleted, the user should be able to recover the information or provide confirmation before deletion. (WCAG 2.0 Reference G99, G168, or G155)
- If the web page causes a legal/financial/data transaction while submitting data, the user should be able to review and correct answers and is confirmation required before submission. (WCAG 2.0 Reference G98 or G168)

Section O - Navigable

CSU ATI Accessibility Requirements specifically requires the use headings and skip navigation.

- Users should be able to bypass blocks of content that are repeated by using skip navigation links. **(CSU ATI Requirement**, WCAG 2.0 Reference G1 or G124 and 2.4.1)
- Heading 1 elements <h1> should be used on each page. (WCAG 2.0 Reference H69, G130)
- The order of the content in the source code should be the same as the visual presentation of the content. (WCAG 2.0 Reference C27)

Recommended:
- There should be more than one-way to navigate through a website. (WCAG 2.0 Reference must use two: G125, or G161 or G126)

Section P - Timed Response
- If a time limit expiration results in the loss of data or access, users should have the ability to turn off, adjust or extend the time limit. (WCAG 2.0 Reference G133, G198, G180 or SCR16)

Recommended:
- If there are time limits on reading, users should have the ability to pause, restart or open in a static window/area. (WCAG 2.0 Reference G4, G198, SCR33, or SCR36)

Syntax Validation
- The language attribute should be used to identify the language used on the HTML page. (WCAG 2.0 Reference H57)
- The web pages should use valid HTML/XHMTL. **(CSU ATI Requirement** WCAG 2.0 Reference G134)
- The web page should use valid CSS. **(CSU ATI Requirement CSSCSU)**

Recommended:
- The language attribute should be used to identify any changes of languages that occur within the page. (WCAG 2.0 Reference H58)

Semantic Requirements
- Headings should be used to organize content and provide a logical hierarchy. (WCAG 2.0 Reference H42 and G141)

ALT Quality Requirements

- Web pages should combine image and adjacent text link for same resource. (WCAG 2.0 Reference H2)
- Alt attribute description should make sense in the context of the page as spoken. **(CSU ATI Requirement** and WCAG 2.0 Reference G196, F20, F30, F38, F39, or F67)

Links Requirements

- The text of each link should describe where the link goes. (WCAG 2.0 Reference H30, G91, C7, ARIA7, ARIA8)
- Links with the same text should not point to different places. **(CSU ATI Requirement)**

AT Evaluation (Assistive Technology)

- Users must be able to navigate the page using assistive technology. **(CSU ATI Requirement)**

Other Visual Test Requirements

- Each page should have a unique and descriptive page title. (WCAG 2.0 Reference H25 and G88)
- Users should be able to navigate the page using a mouse and keyboard. (WCAG 2.0 Reference G202, H91, G90 and (SCR20 or SCR35 or SCR2), G21, F10)
- The keyboard focus indicator should be visible by keyboard. (WCAG 2.0 Reference G149)
- Text can be resized without assistive technology up to 200 percent without loss of content or functionality. (WCAG 2.0 Reference 1.4.4)
- Columns, page elements, or text lines should not overlap each other when text is enlarged with browser settings. (WCAG 2.0 Reference G179 and C17)

Site Quality Requirements

- There should not be any broken links that prevent navigation within the website**. (CSU ATI Requirement)**

Revision Control

Document Title: CSUSB Web Accessibility

Author: Rosa Padilla

Date	By	Action	Pages
6/23/16	Rosa Padilla	Split Standards and Guidelines to meet CSU CO Baseline Standards	All
6/23/16	Rosa Padilla	Remove Standards	All
6/23/16	Rosa Padilla	Include all CO rulesets	All

Review/Approval History

Date	By	Action	Pages
8/29/16	ATI Steering Committee	Approved	All