

American Chemical Society Accessibility Conformance Report

WCAG Edition

(Based on VPAT® Version 2.4)

Name of Product/Version: ACS Case Studies for Research Lab Safety – Evaluator

Report Date: April 30, 2024

Product Description:

ACS Case Studies for Research Lab Safety is a 90-minute course that guides students and faculty through five real-world lab safety incident case studies. Based on the RAMP model, this course teaches fundamental risk assessment skills that are universally applicable to all research environments throughout their academic career and into industry.

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Notes:

Evaluation Methods Used:

The evaluation was conducted in accordance with the WCAG 2.1 (Level AA) Accessibility Guidelines that cover the Revised Section 508 Accessibility Standards of the Rehabilitation Act.

Testing was done between April 28 - June 3 2022.

The evaluation was conducted in four different operating systems using the following browser/screen reader configurations:

Operating System	Browser	Assistive Technology
Windows OS	Chrome	JAWS 2019
	Firefox	NVDA 2019.1
MacOS	Safari	Voiceover
iOS	Safari	Voiceover

The evaluators looked for the presence of relevant accessibility barriers. The evaluation was performed in multiple testing environments outlined in the table above.

The accessibility assessment was executed per the following steps:

- I. Four accessibility experts conducted an overall technical analysis to identify issues of technical compliance that would affect blind, mobility impaired, deaf/hearing impaired and low vision users.
- II. Keyboard accessibility analysis (for mobility and physically challenged users) was conducted by attempting to thoroughly navigate the website through the keyboard, without using a mouse. Voice control testing was also performed.
- III. For deaf and hard of hearing users, testing was performed for proper captioning.
- IV. The web portal's accessibility for low vision users was evaluated: (1) using the screen magnification, palette, and contrast controls provided by the operating systems; (2) using the font resizing capability offered by the browser, (3) using WebAim Contrast Checker, (4) testing reflow by setting the screen width to 1280 pixels and increasing the page zoom to 400%, and (5) testing font sizing.
- V. An expert accessibility evaluator conducted the screen reader testing. The goal was to identify accessibility barriers that are likely to be experienced by users who are blind. The evaluator worked through selected functions using the appropriate screen reader. Any pages found to have screen reader issues were re-examined in interactive sessions with the evaluation team.

Items in the Supports category are coded in one of the acceptable methods outlined by W3C.

Applicable Standards/Guidelines

This report covers the degree of conformance for the following accessibility standard/guidelines:

Standard/Guideline	Included In Report
Web Content Accessibility Guidelines 2.0	Level A (Yes) Level AA (Yes) Level AAA (No)
Web Content Accessibility Guidelines 2.1	Level A (Yes) Level AA (Yes) Level AAA (No)

Terms

The terms used in the Conformance Level information are defined as follows:

- **Supports:** The functionality of the product has at least one method that meets the criterion without known defects or meets with equivalent facilitation.
- **Partially Supports:** Some functionality of the product does not meet the criterion.
- **Does Not Support:** The majority of product functionality does not meet the criterion.
- **Not Applicable:** The criterion is not relevant to the product.
- **Not Evaluated:** The product has not been evaluated against the criterion. This can be used only in WCAG 2.0 Level AAA.

WCAG 2.x Report

Note: When reporting on conformance with the WCAG 2.x Success Criteria, they are scoped for full pages, complete processes, and accessibility-supported ways of using technology as documented in the [WCAG 2.0 Conformance Requirements](#) and [WCAG 2.1 Conformance Requirements](#).

Table 1: Success Criteria, Level A

Notes:

Criteria	Conformance Level	Remarks and Explanations, December 2022	Progress as of April 2024
1.1.1 Non-text Content (Level A)	Partially Supports	1) With minor exceptions, functional images have sufficient text description. Exceptions: The ACS logo and course title image do not have text description.	1) Many slides have multiple, non-functional, unlabeled images at the beginning; these are not part of course content or navigation. 2) ACS logo and course title image have text descriptions.
1.2.1 Audio-only and Video-only (Prerecorded) (Level A)	Supports		
1.2.2 Captions (Prerecorded) (Level A)	Supports		
1.2.3 Audio Description or Media Alternative (Prerecorded) (Level A)	Supports		
1.3.1 Info and Relationships (Level A)	Partially Supports	1) A modal message disrupts screen reader access to the application with some screen readers and browsers. The modal does not get focus when using Voiceover with Safari in iOS and cannot be dismissed. For this reason and others, course content is unavailable for IOS/Safari/Voiceover users.	1, 2) The Docebo LMS was used for testing this product. Users of other LMS platforms will not encounter these issues. 3) Heading structure within course content is fixed. 4) The "i" elements in the Help overview have been fixed.

Criteria	Conformance Level	Remarks and Explanations, December 2022	Progress as of April 2024
		<p>2) The modal does not get focus when using NVDA or JAWS with Firefox in Windows and cannot be dismissed. Course content is unavailable for users of Firefox and JAWS or NVDA.</p> <p>The course module navigation section is not in a region and does not have a heading</p> <p>3) Some course content pages do not provide sufficient semantic structure through the use of headings, landmarks /regions, or labels.</p> <p>4) The "i" elements in the Help overview slide do not work well in Voiceover desktop – each is followed by the name of the button and “empty region”.</p> <p>5) The Close "x" button is not easily accessed with a screen reader. The user must select the Tab key to place focus on the Close button in VoiceOver, JAWS and NVDA.</p>	<p>5) Modal close buttons (“X”) have been fixed.</p>
1.3.2 Meaningful Sequence (Level A)	Supports		
1.3.3 Sensory Characteristics (Level A)	Supports	<p>Instructions for understanding the location of two components use visual location descriptions that do not align with the order in which they appear to the screen reader.</p>	<p>These have been fixed. This improvement shifted the conformance level from Partially Supports in the December 2022 audit to Supports in the April 2024 review.</p>

Criteria	Conformance Level	Remarks and Explanations, December 2022	Progress as of April 2024
1.4.1 Use of Color (Level A)	Supports		
1.4.2 Audio Control (Level A)	Supports		
2.1.1 Keyboard (Level A)	Partially Supports	Interactive controls used throughout the application are keyboard accessible with minor exceptions. Example: Four links in the ACS portal do not receive keyboard focus.	The Docebo LMS was used for testing this product. Users of other LMS platforms will not encounter these issues.
2.1.2 No Keyboard Trap (Level A)	Supports		
2.1.4 Character Key Shortcuts (Level A 2.1 only)	Supports		
2.2.1 Timing Adjustable (Level A)	Supports		
2.2.2 Pause, Stop, Hide (Level A)	Supports		
2.3.1 Three Flashes or Below Threshold (Level A)	Supports		
2.4.1 Bypass Blocks (Level A)	Supports		
2.4.2 Page Titled (Level A)	Supports		
2.4.3 Focus Order (Level A)	Partially Supports	<p>1) After closing some modals, focus is placed at the beginning or end of the course slide and not on the activating element.</p> <p>2) After selecting the button to open the Accessibility slide, focus is placed in the sidebar nav region, not in the slide.</p> <p>3) For some questions, selecting the “Try</p>	<p>1) Focus behavior when closing modals has been fixed with minor exceptions, when focus moves to the top of the slide.</p> <p>2) Focus is placed in Accessibility modal when it opens.</p> <p>3) “Try Again” buttons place focus closer to the start of the question.</p>

Criteria	Conformance Level	Remarks and Explanations, December 2022	Progress as of April 2024
		Again” does not place focus at the start of the question.	
2.4.4 Link Purpose (In Context) (Level A)	Supports		
2.5.1 Pointer Gestures (Level A 2.1 only)	Supports		
2.5.2 Pointer Cancellation (Level A 2.1 only)	Supports		
2.5.3 Label in Name (Level A 2.1 only)	Partially Supports	Most buttons used throughout the application are correctly labeled. Exceptions: The "back" button used to navigate between slides is labeled "previous". The “Continue” button used for some questions is labeled “Select to move on to the question”.	Some of the previously mislabeled buttons have been correctly labeled.
2.5.4 Motion Actuation (Level A 2.1 only)	Supports		
3.1.1 Language of Page (Level A)	Supports		
3.2.1 On Focus (Level A)	Supports		
3.2.2 On Input (Level A)	Supports		
3.3.1 Error Identification (Level A)	Supports		
3.3.2 Labels or Instructions (Level A)	Partially Supports	1) The Search edit field is not properly labeled. 2) A course question includes lengthy instructions and descriptions that screen reader users must read prior to answering the question.	1, 2) The Docebo LMS was used for testing this product. Users of other LMS platforms will not encounter these issues.
4.1.1 Parsing (Level A)	Supports		

Criteria	Conformance Level	Remarks and Explanations, December 2022	Progress as of April 2024
4.1.2 Name, Role, Value (Level A)	Partially Supports	<p>1) The course module navigation selection controls do Not indicate their role or state.</p> <p>2) Some user interface elements throughout the application do not provide their role or value. Example: The Play/ Pause control in the video player does not provide its state.</p> <p>3) Icons in the Help overview that are buttons used to open content do not reflect state when expanded.</p>	<p>1, 2) The Docebo LMS was used for testing this product. Users of other LMS platforms will not encounter these issues.</p> <p>3) This has been fixed.</p>

Table 2: Success Criteria, Level AA

Notes:

Criteria	Conformance Level	Remarks and Explanations, December 2022	Progress as of April 2024
1.2.4 Captions (Live) (Level AA)	Supports		
1.2.5 Audio Description (Prerecorded) (Level AA)	Supports		
1.3.4 Orientation (Level AA 2.1 only)	Supports		
1.3.5 Identify Input Purpose (Level AA 2.1 only)	Supports		
1.4.3 Contrast (Minimum) (Level AA)	Supports	Text elements throughout the application provide sufficient contrast with minor exceptions.	Contrast issues have been resolved.
1.4.4 Resize text (Level AA)	Supports		

Criteria	Conformance Level	Remarks and Explanations, December 2022	Progress as of April 2024
1.4.5 Images of Text (Level AA)	Supports		
1.4.10 Reflow (Level AA 2.1 only)	Supports		
1.4.11 Non-text Contrast (Level AA 2.1 only)	Partially Supports	<p>1) The focus indicator used throughout the application for interactive elements provides sufficient contrast against most background colors. In a few instances the contrast is slightly below the minimum requirement.</p> <p>2) The outline color for several user interface elements such as radio buttons do not provide sufficient contrast.</p>	<p>1) The Docebo LMS was used for testing this product. Users of other LMS platforms will not encounter these issues.</p> <p>2) This has been fixed.</p>
1.4.12 Text Spacing (Level AA 2.1 only)	Supports		
1.4.13 Content on Hover or Focus (Level AA 2.1 only)	Supports		
2.4.5 Multiple Ways (Level AA)	Supports		
2.4.6 Headings and Labels (Level AA)	Supports	Headings are not used for the content slides throughout the application.	This has been fixed. This improvement shifted the conformance level from Partially Supports in the December 2022 audit to Supports in the April 2024 review.
2.4.7 Focus Visible (Level AA)	Supports		
3.1.2 Language of Parts (Level AA)	Supports		
3.2.3 Consistent Navigation (Level AA)	Supports		
3.2.4 Consistent Identification (Level AA)	Supports		
3.3.3 Error Suggestion (Level AA)	Supports		
3.3.4 Error Prevention (Legal, Financial, Data) (Level AA)	Supports		
4.1.3 Status Messages (Level AA 2.1 only)	Supports		

Table 3: Success Criteria, Level AAA

Notes:

Criteria	Conformance Level	Remarks and Explanations
1.2.6 Sign Language (Prerecorded) (Level AAA)	Not Evaluated	
1.2.7 Extended Audio Description (Prerecorded) (Level AAA)	Not Evaluated	
1.2.8 Media Alternative (Prerecorded) (Level AAA)	Not Evaluated	
1.2.9 Audio-only (Live) (Level AAA)	Not Evaluated	
1.3.6 Identify Purpose (Level AAA 2.1 only)	Not Evaluated	
1.4.6 Contrast (Enhanced) (Level AAA)	Not Evaluated	
1.4.7 Low or No Background Audio (Level AAA)	Not Evaluated	
1.4.8 Visual Presentation (Level AAA)	Not Evaluated	
1.4.9 Images of Text (No Exception) (Level AAA)	Not Evaluated	
2.1.3 Keyboard (No Exception) (Level AAA)	Not Evaluated	
2.2.3 No Timing (Level AAA)	Not Evaluated	
2.2.4 Interruptions (Level AAA)	Not Evaluated	
2.2.5 Re-authenticating (Level AAA)	Not Evaluated	
2.2.6 Timeouts (Level AAA 2.1 only)	Not Evaluated	
2.3.2 Three Flashes (Level AAA)	Not Evaluated	
2.3.3 Animation from Interactions (Level AAA 2.1 only)	Not Evaluated	
2.4.8 Location (Level AAA)	Not Evaluated	
2.4.9 Link Purpose (Link Only) (Level AAA)	Not Evaluated	
2.4.10 Section Headings (Level AAA)	Not Evaluated	
2.5.5 Target Size (Level AAA 2.1 only)	Not Evaluated	
2.5.6 Concurrent Input Mechanisms (Level AAA 2.1 only)	Not Evaluated	
3.1.3 Unusual Words (Level AAA)	Not Evaluated	
3.1.4 Abbreviations (Level AAA)	Not Evaluated	
3.1.5 Reading Level (Level AAA)	Not Evaluated	

Criteria	Conformance Level	Remarks and Explanations
3.1.6 Pronunciation (Level AAA)	Not Evaluated	
3.2.5 Change on Request (Level AAA)	Not Evaluated	
3.3.5 Help (Level AAA)	Not Evaluated	
3.3.6 Error Prevention (All) (Level AAA)	Not Evaluated	

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