American Chemical Society
Accessibility Conformance Report

WCAG Edition

(Based on VPAT® Version 2.4)

Name of Product/Version: ACS Essentials of Lab Safety for General Chemistry

Report Date: April 30, 2024

Product Description:

ACS Essentials of Lab Safety for General Chemistry is a 90-minute online course that provides students with the vital concepts of chemical safety and prepares them for their first experiment in the general chemistry lab.

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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 July 21 and August 9, 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

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)

Standard/Guideline	Included In Report
	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, August 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. 2) The ACS logo and course title image do not have text description. 3) Magnification buttons do not have sufficient text description in one exercise.	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. 3) Magnification buttons have been fixed.
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 in the desktop view. The modal appears when returning to page but does not get focus. 2) A modal message that cannot be dismissed via the screen reader appears in the mobile view (iOS with Voiceover).	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.

Criteria	Conformance Level	Remarks and Explanations, August 2022	Progress as of April 2024
		3) Some course content pages do not provide sufficient semantic structure through the use of headings, landmarks / regions or labels. 4) The "Close" button on the slide viewer is not announced as a button.	4) The Docebo LMS was used for testing this product. Users of other LMS platforms will not encounter these issues.
1.3.2 Meaningful Sequence (Level A)	Supports		
1.3.3 Sensory Characteristics (Level A)	Supports		
1.4.1 Use of Color (Level A)	Supports		
1.4.2 Audio Control (Level A)	Supports		
2.1.1 Keyboard (Level A)	Supports		
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)	Partially Supports	1) Pages in the ACS Institute portal pages do not have descriptive titles.	
2.4.3 Focus Order (Level A)	Partially Supports	2) Focus goes to top of frame after many actions with JAWS , remains on disabled button with NVDA.	3) This has been fixed 4) This has been fixed

Criteria	Conformance Level	Remarks and Explanations, August 2022	Progress as of April 2024
		3) Screen reader focus does not return to activating element after closing "Success Tips" 4) Focus does not return to activating element after closing "Hints"	
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)	Supports		
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)	Supports		
4.1.1 Parsing (Level A)	Supports		
4.1.2 Name, Role, Value (Level A)	Partially Supports	Some user interface elements throughout the application do not provide their role or value. Example: The Hint button state does not change when open or closed (Browser-specific – only MacOS with Voiceover).	The Hint button and other icon buttons have been fixed.

Criteria	Conformance Level	Remarks and Explanations, August 2022	Progress as of April 2024
		Some Icons that are buttons used to open content do not reflect state when expanded.	

Table 2: Success Criteria, Level AA

Notes:

Criteria	Conformance Level	Remarks and Explanations, August 2022	Progress as of April 2024
1.2.4 Captions (Live) (Level AA)	Supports		
1.2.5 Audio Description (Prerecorded) (Level AA)	Supports	Audio descriptions are available for video content.	
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. Ex: The "That's correct" text in the feedback panel.	This has been fixed
1.4.4 Resize text (Level AA)	Supports		
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	The focus indicator for interactive elements provides sufficient contrast against most background colors.	The Docebo LMS was used for testing this product. Users of other LMS platforms will not encounter these issues.

Criteria	Conformance Level	Remarks and Explanations, August 2022	Progress as of April 2024
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		
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	

Criteria	Conformance Level	Remarks and Explanations
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	
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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