

# High-Level Accessibility Evaluation (WCAG 2.1)

Open Textbook Library

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**Prepared for:**

BTAA-Library Accessibility Alliance

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## SUMMARY

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This report reflects the findings of a high-level assessment of the Open Textbook Library platform for its conformance with the W3C Web Content Accessibility Guidelines version 2.1 (WCAG 2.1).

There are very few WCAG 2.1 compliance issues with Open Textbook Library, and they are very minor overall with the most pressing issue being around content bypasses and keyboard navigation. Below are the most critical issues to address to improve system compliance.

### Top Findings

1. **Skip Links and Bypasses:** The main problem with the accessibility is the lack of skip links and other content block bypasses. These are important for non-sighted users to be able to navigate the site quickly without having to repeat content or get lost in an infinite scroll.
2. **Keyboard Navigation:** Another major issue is in the full text of the ebook. There are several scrollable regions on the page that do not have keyboard access. These areas must be accessible using the keyboard so that all users are able to scroll the content. Additionally, the filters panel in the search results is not accessible using the keyboard.
3. **Color Contrast:** There is a minor color contrast issue with the filter panel. The filter label has an insufficient color contrast ratio of 4.4 (foreground color: #666f77, background color: #eeeeee, font size: 13.8pt (18.4px), font weight: normal), and should be at least 4.5:1.

### Best Practices

- ◆ Heading levels should only increase by one.
- ◆ All page content should be contained by landmarks.

## ACCESSIBILITY FINDINGS

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This report was conducted against the Open Textbook Library Platform and covers a selection of pages and features that were to be tested as a representative sample of the database's conformance to the WCAG 2.1 AA standards.

The resource was reviewed using a combination of manual and automatic review tools and assistive technologies, including the WAVE Accessibility Assessment tool, Axe Accessibility Assessment tool, WCAG Color Contrast Checker, and NVDA screen reader. PDF content was tested against Section 508 requirements using Adobe Acrobat's accessibility tools and manual analysis. All problems identified by automatic tools were verified manually. This evaluation was performed using Firefox on Windows 11.

Below are the errors revealed during the accessibility evaluation of the Open Textbook Library platform. Each result shows a summary of accessibility issues and the reason it was flagged. Screenshots are included.

# 1. Initial Interface

**Test Case:** Test initial interface/landing page to ensure menus, sub-menus, search box, images, icons, etc. are accessible. <https://open.umn.edu/opentextbooks/>

**Open Textbook Library**

Search the Library **GO**

[Browse Subjects](#) [About Open Textbooks](#) [Submit](#) [Discovery](#) [Open Education Network](#)

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Published by PALNI

**SC 2.4.1:** A mechanism should be available to bypass repeated blocks of content.

Sites should have a way to skip past repeated blocks of content, such as branding, account, login, etc. This most commonly takes the form of “Skip to main content” and “Skip to navigation” links.

**Reason flagged:**

- There are no skip links at the top of the page.

## 2. Search Results

**Test Case:** From the initial landing page, conduct a search for: computer science. Test search results page, including filters/refine search. Filter to CC BY. Sort by Faculty Rating.

The screenshot shows the Open Textbook Library search results page. At the top, there is a search bar with the text "Search the Library" and a "GO" button. Below the search bar are navigation links: "Browse Subjects", "About Open Textbooks", "Submit", "Discovery", and "Open Education Network". The main content area is titled "All Textbooks" and features a "Filters" dropdown menu. Two search results are displayed:

- College Success Concise**
  - Contributor: Baldwin
  - Publisher: OpenStax
  - License: CC BY
  - Description: OpenStax College Success Concise serves First Year Experience, Student Success, and College Transition courses, and can also be used as a supplementary resource in courses across the curriculum. With the input of hundreds of instructors and academic success experts, the authors carefully prioritized the most critical topics to align to briefer courses. The offering covers material such as college culture, time management, mindset, study skills, test preparation, financial literacy, health, and planning for the future. While much of the material is very similar to the original College Success book, this version was holistically edited and updated. Users will see additions such as a new section on group work and greatly expanded coverage of stress management and wellbeing.
  - Rating: 5 stars (7 reviews)
  - Button: READ MORE »
- Medical Terminology for Healthcare Professions**
  - Copyright Year: 2021
  - Contributors: Nelson and Greene
  - Publisher: University of West Florida Pressbooks
  - License: CC BY
  - Description: Medical Terminology for Healthcare Professions is an Open Educational Resource (OER) that focuses on breaking down, pronouncing, and learning the meaning of medical terms within the context of anatomy and physiology. This resource is targeted for Healthcare Administration, Health Sciences, and Pre-Professional students.
  - Rating: 5 stars (7 reviews)

**SC 1.4.3:** Elements must meet minimum color contrast ratio thresholds.

**Location(s):**

- `<h4>Filters</h4>`

**Reason flagged:**

- Element has insufficient color contrast of 4.4 (foreground color: #666f77, background color: #eeeeee, font size: 13.8pt (18.4px), font weight: normal). Expected contrast ratio of 4.5:1

**SC 2.1.1:** All functionality should be keyboard accessible.

All functionality of a web page should be accessible using the keyboard. During testing the Filter panel was inaccessible using keyboard controls.

**Reason flagged:**

- Filters are inaccessible using the keyboard.

### SC 2.4.1: A mechanism should be available to bypass repeated blocks of content.

Sites should have a way to skip past repeated blocks of content, such as branding, account, login, etc. This most commonly takes the form of “Skip to main content” and “Skip to navigation” links. Additionally, users should be able to skip past feed content to the footer of a page.

#### Reason flagged:

- There are no skip links at the top of the page.
- Search results region lacks pagination and doesn't have the “feed” role.
- User cannot use the “End” key to skip to the footer of the page.

## 3. Individual Results

**Test Case:** Select the first book in the search results to test the individual search result landing page.

The screenshot shows the Open Textbook Library search result page for the book "College Success Concise". The page layout includes a header with the library logo and a search bar. Below the header, there are navigation links: "Browse Subjects", "About Open Textbooks", "Submit", "Discovery", and "Open Education Network". The main content area is divided into several sections:

- Book Information:** Features the book cover, title "College Success Concise", "(7 reviews)", a 5-star rating, author "Amy Baldwin, University of Central Arkansas", ISBN "9781951693664", publisher "OpenStax", and language "English".
- Formats Available:** Three buttons for "PDF", "ONLINE", and "HARDCOPY".
- Conditions of Use:** Includes the Creative Commons Attribution (CC BY) license logo and text.
- Reviews:** A section with a 5-star rating, a link to "Learn more about reviews", and two review snippets. The first review is by Kellie Schmidt, Associate Dean for Student Success, Franklin College on 1/22/24. The second review is by Rhinehart Heidi, Director of Advising, Clarke University on 1/3/24.
- Table of Contents:** A list of 8 chapters: Preface, 1. Transitioning to College, 2. Managing Your Time and Priorities, 3. Reading and Note-Taking, 4. Studying, Memory, and Test Taking, 5. Building Relationships, 6. Maintaining Your Mental Health and Managing Stress, 7. Understanding Financial Literacy, and 8. Planning Your Future.
- Ancillary Material:** A link to "Submit ancillary resource".
- About the Book:** A detailed paragraph describing the book's content and its suitability for first-year experience, student success, and college transition courses.

**SC 2.4.1:** A mechanism should be available to bypass repeated blocks of content.

Sites should have a way to skip past repeated blocks of content, such as branding, account, login, etc. This most commonly takes the form of “Skip to main content” and “Skip to navigation” links.

**Reason flagged:**

- There are no skip links at the top of the page.

**SC 1.3.1:** <li> elements must be contained in a <ul> or <ol>.

**Location(s):**

- <li><a target="0" href="/opentextbooks/ancillaries/submit?textbook\_id=1402">Submit ancillary resource</a></li>

**Reason flagged:**

- List item does not have a <ul>, <ol> parent element



## 4. Full eBook

**Test Case:** Test the full-text of the ebook by clicking into the Online link. Test the table of contents. Search the text of the ebook by typing “mental health” and click on one of the results. <https://openstax.org/books/college-success-concise/pages/1-introduction>

The screenshot shows the OpenStax website interface. At the top, there is a navigation bar with the OpenStax logo and a 'Log in' link. Below this is a red header with the text 'College Success Concise' and 'Introduction'. A search bar on the right contains the text 'mental health'. On the left, a sidebar shows a table of contents with sections like '5 Building Relationships' and '6 Maintaining Your Mental Health and Managing Stress'. The main content area displays search results for 'mental health', including a large image of two graduates in caps and gowns. Below the image is a 'Chapter Outline' with links to sections like '1.1 Why College?' and '1.2 The First Year of College Will Be an Experience'. There is also a 'Student Survey' section with a list of questions. At the bottom, there is a 'STUDENT PROFILE' section and a 'Manage Preferences' button. A footer at the very bottom contains a privacy notice: 'This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising purposes. To learn more, view the following link: [Privacy Notice](#)'.

**SC 2.1.1:** Scrollable regions must have keyboard access.

**Location(s):**

- There are multiple instances of this issue on this page.

**Reason flagged:**

- Element should have focusable content
- Element should be focusable

Disclaimer: This high-level evaluation was conducted for the Library Accessibility Alliance and represents a good faith effort conducted within a limited time frame. It should not be assumed to be complete or free from error. No warranties or guarantees are implied. UT is not responsible for direct, indirect, or incidental damages based on this work; its use or interpretation by any individual, group, or organization; or on conditions beyond our control.