

## California Open Online Library for Education & Accessibility

COOL4Ed (the California Open Online Library for Education) was created so that faculty can easily find, adopt, utilize, review and/or modify free and open etextbooks for little or no cost. The COOL4Ed accessibility open textbook evaluations can inform faculty, staff, and students how the free and open etextbooks meet 15 accessibility "checkpoints" that could impact the learning of learners with a range of disabilities.

### SUMMARY OF ACCESSIBILITY EVALUATION:

Textbook: Music 105: Music Appreciation

Format of Textbook: PDF

Assistive Technology (AT) Evaluation Score: Overall	6.3 (Maximum score = 10)
Assistive Technologies (AT) Evaluations applies specialized tools and software in the accessibility evaluation process. These specialized assistive technologies, see list below, are typically not used or available by the general public into the accessibility evaluation process.	
<ul> <li>Accessibility features of desktop operating systems (e.g. high-contrast display themes, settings from the Keyboard and Mouse control panels)</li> <li>Accessibility-related software included with desktop operating systems (e.g. VoiceOver, Microsoft Narrator)</li> <li>Third-party accessibility software and hardware:</li> <li>Screen readers (e.g. JAWS, Window Eyes)</li> <li>Magnification software (e.g. ZoomText Magnifier/Reader, MAGIC Pro with Speech)</li> <li>Reading software for users with learning disabilities (e.g. Read and Write Gold, Kurzweil 3000)</li> <li>Refreshable Braille displays</li> </ul>	
Non- Assistive Technology (NAT) Evaluation Score: Overall	6.2 (Maximum score =10)
Non-Assistive Technologies (NAT) Evaluations applies only native or basic tools and software such as the keyboard and Narrator in the accessibility evaluation process. These non-assistive technologies are readily available and used by the general public.	



#### **COOL4Ed Accessibility Evaluation Methods:**

The California State University <u>Accessible Technology Initiative</u> and <u>MERLOT</u> (Multimedia Educational Resources for Learning and Online Teaching) developed the rubric or "checkpoints" for the accessibility evaluation. <u>CAST</u>, a nationally recognized organization with expertise in accessibility and UDL, reviewed and affirmed the appropriateness and value of the accessibility evaluation rubric and contributed the references and support resources to help people learn how best to design, evaluate, and remediate the learning materials to maximize the accessibility of the learning resources for all. The "checkpoints" have been built upon the Section 508 technical standards and has been organized and tailored to the typical characteristics of digital resources used in higher education courses.

The accessibility evaluations were performed by the <u>Center for Usability in Design and Accessibility</u> at California State University, Long Beach; faculty and graduate students with expertise in human factors, usability, and accessibility performed the evaluations of over 150 free and open etextbooks. COOL4ed.org has published the accessibility evaluation rubric and provides a detailed description of the methodology used to evaluate the accessibility of the etextbooks in COOL4ed.

#### LOOKING FOR DETAILED ACCESSIBILITY REPORTS?

See Detailed Accessibility Evaluation Report using Assistive Technologies

See Detailed Accessibility Evaluation Report using Non-Assistive Technologies



## DETAILED ACCESSIBILITY EVALUATION REPORT using Assistive Technologies

**Assistive Technologies (AT) Evaluations** applies specialized tools and software in the accessibility evaluation process. These specialized assistive technologies, such as Kurzweil and NVDA, are typically not used or available by the general public into the accessibility evaluation process.

#### 1. Accessibility Documentation

A. The organization providing the online materials has a formal accessibility policy.	Fail
Additional Information:	No content found.
B. The organization providing the online materials has an accessibility statement.	Fail
Additional Information:	No content found.
C. An Accessibility Evaluation Report is available from an external organization.	Fail
Additional Information:	No content found.

#### 2. Text Access

A. The text of the digital resource is available to assistive technology that allows the user to enable text-to-speech (TTS) functionality.	Pass
Additional Information:	5/5 pages passed. 2 pages from MUS105Mod2bReadAboutItListentoIt checked, 3 pages from MUS105Mod2lCorporateOwnedRecordLabels checked. All text were read correctly with correct order.

### 3. Text Adjustment

A. Text is compatible with assistive technology.	Pass
Additional Information:	1/1 page passed. One page from from
	MUS105Mod2bReadAboutItListentoIt checked. All



	text on the page can adjust its size using grow/shrink font function with MS word.
B. The resource allows the user to adjust the font size and font/background color (or is rendered by an application such as a browser, media player, or reader) that offers this functionality).	Pass
Additional Information:	5/5 pages passed. 2 pages from MUS105Mod2bReadAboutItListentoIt checked, 3 pages from MUS105Mod2lCorporateOwnedRecordLabels checked. All text were able to change both font and background color correctly with MS word.

## 4. Reading Layout

A. Text of the digital resource is compatible with assistive technology that allows the user to reflow the text by specifying the margins and line spacing (or is rendered by an application such as a browser, media player, or reader that offers this functionality).	Fail
Additional Information:	0/1 page passed. One page from from MUS105Mod2bReadAboutItListentoIt checked. No reflow of text for entire page when zooming in and out with MS word.
B. If the digital resource is an electronic alternative to printed materials, the page numbers correspond to the printed material.	N/A
Additional Information:	No printed material available to compare.

## 5. Reading Order

A. The reading order for digital resource content	Pass
logically corresponds to the visual layout of	
the page when rendered by assistive	
technology.	



Additional Information:	5/5 pages passed. 2 pages from
	MUS105Mod2bReadAboutItListentoIt checked, 3
	pages from
	MUS105Mod2lCorporateOwnedRecordLabels
	checked. All text were read correctly with correct
	order.

6. Structural Markup/Navigation	
A. The text of the digital resource includes markup (e.g. tags or styles) that allows for navigation by key structural elements (chapters, headings, pages) using assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality).	Fail
Additional Information:	0/5 pages passed. 10 headings found in the 5 pages, only one heading was recognized as "HEADING level" in page 2 of MUS105Mod2lCorporateOwnedRecordLabels. 2 pages from MUS105Mod2bReadAboutItListentoIt checked, 3 pages from MUS105Mod2lCorporateOwnedRecordLabels checked.
B. The text of the digital resource includes markup for bullets and numbered lists that is compatible with assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality).	Fail
Additional Information:	0/3 lists passed. Only 3 lists found. NVDA has no reaction when using short key for List in MUS105Mod2bReadAboutItListentoIt, when using NVDA with MUS105Mod2lCorporateOwnedRecordLabels it says "Not supported in this document." 2 pages from MUS105Mod2bReadAboutItListentoIt checked, 3 pages from



	MUS105Mod2lCorporateOwnedRecordLabels checked. MS word and NVDA used inthe evaluation.
C. If the text of the digital resource is delivered within an ebook reader application, a method is provided that allows users to bypass the reader interface and move directly to the text content that is compatible with assistive technology.	N/A
Additional Information:	No additional eReader is used for the evaluation.

### 7. Tables

A. Data tables include markup (e.g. tags or	N/A
styles) that identifies row and column headers	
in a manner that is compatible with assistive	
technology (or are rendered by an application	
such as a browser, media player, or reader	
that offers this functionality).	
Additional Information	No table found in the entire book.
Additional Information:	NO table lound in the entire book.

## 8. Hyperlinks

A. In-book links take you to a location within the textbook. For example, the table of contents would be considered in-book links and embedded links take you to the correct location in the book.	N/A
Additional Information:	No within book links found.
B. Live hyperlinks take you to any website or webpages external to the book.	Fail
Additional Information:	Average from functionality and description.
C. Live links take you to the correct webpage that is functioning properly.	Fail
Additional Information:	0/20 live links passed. 1 link from  MUS105Mod2bReadAboutItListentoIt checked (0/1  worked properly), 19 links from  MUS105Mod2lCorporateOwnedRecordLabels



	checked (0/19 worked properly). Also, Tabs does not work when trying to use keyboard only navigation with NVDA. MS word and NVDA used to evaluate.
D. Live links are descriptive enough for the users to know where it should take them.	Fail
Additional Information:	0/20 live links passed. 1 link from MUS105Mod2bReadAboutItListentolt checked (0/1 have description), 19 links from MUS105Mod2lCorporateOwnedRecordLabels checked (0/19 have proper decription, all 19 links have a description but not sufficient enough for users to know where the link is taking them to). Also, Tabs does not work when trying to use keyboard only navigation with NVDA. MS word and NVDA used to evaluate.

### 9. Color and Contrast

A. All information within the material that is conveyed using color is also available in a manner that is compatible with those that do not perceive color, and information conveyed by color is also conveyed in other ways.	Pass
Additional Information:	2/2 pages passed. 2 pages from MUS105Mod2lCorporateOwnedRecordLabels checked. Hyperlink that was presented with color (blue) are also underlined. No other color were used to convey information.
B. Information is conveyed from the sub- categories for contrast.	Pass
Additional Information:	Average from header and text contrast.
C. Contrast for headers passed WCAG AA standards for large texts (contrast ratio 3:1).	Pass
Additional Information:	2/2 pages passed. 2 pages from MUS105Mod2lCorporateOwnedRecordLabels checked. All header were black on white and they all



D. Contrast for text passed WCAG AA standards for normal texts (contrast ratio of 4.5:1).	passed AA standard using CCA tool. MS word and CCA tool used.  Pass
Additional Information:	2/2 pages passed. 2 pages from MUS105Mod2lCorporateOwnedRecordLabels checked. All text were black on white which pass AA standards, only exceptions are they hyperlinks, but all hyperlinks were in blue that also passes AA standards. MS word and CCA tool used to evaluate.
E. Contrast for simple images (for example, images of atoms) passed WCAG AA standards (contrast ratio of 4.5:1).	N/A
Additional Information:	No images found in the entire book.

## 10.Language

manner that is compatible with assistive technology.  Additional Information:	No additional language found in the entire book.
foreign language, these passages include markup that declares the language in a	
B. If the digital resource includes passages in a	evaluate if there is a language markup or not.  N/A
Additional Information:	Detail properties not available for this book. Cannot
content in a manner that is compatible with assistive technology.	
A. The text of the digital resource includes markup that declares the language of the	N/A

## 11.Images

A. Non-decorative images have alternative text	N/A
that is compatible with assistive technology	
(or is rendered by an application such as a	
browser, media player, or reader that offers	
this functionality).	



Additional Information:	No images in the entire book.
B. Decorative images are marked with null alternate text or contain markup that allows them to be ignored by assistive technology.	N/A
Additional Information:	No images in the entire book.
C. Complex images, charts, and graphs have longer text descriptions that are compatible with assistive technology (or are rendered by an application such as a browser, media player, or reader) that offers this functionality).	N/A
Additional Information:	No images in the entire book.

## 12.Multimedia

A. A synchronized text track (e.g. open or closed captions) is provided with all video content.	N/A
Additional Information:	No multimedia found in the entire book.
B. A transcript is provided with all audio content.	N/A
Additional Information:	No multimedia found in the entire book.
C. Audio/video content is delivered via a media player that is compatible with assistive technology. This includes support for all criteria listed in Section 15 below.	N/A
Additional Information:	No multimedia found in the entire book.

## 13.Flickering

	A. The digital resource content does not contain anything that flashes more than three times in any one-second period.	Pass
,	Additional Information:	No flickering content.



## 14.Science, Technology, Engineering, and Math (STEM)

A. STEM figures have appropriate markup that indicates that the image is a figure.	N/A
Additional Information:	No STEM content found in the entire book.
B. STEM graphs have appropriate markup that indicates that the image is a graph.	N/A
Additional Information:	No STEM content found in the entire book.
C. STEM equations have appropriate markup that indicates that the image is an equation.	N/A
Additional Information:	No STEM content found in the entire book.
D. STEM tables have appropriate markup that indicates the image is a table.	N/A
Additional Information:	No STEM content found in the entire book.
E. STEM figures have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	N/A
Additional Information:	No STEM content found in the entire book.
F. STEM graphs have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	N/A
Additional Information:	No STEM content found in the entire book.
G. STEM equations have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	N/A
Additional Information:	No STEM content found in the entire book.
H. Assistive technology used can access the content from the STEM tables.	N/A
Additional Information:	No STEM content found in the entire book.



#### 15.Interactive Elements

A. Each interactive element (e.g. menu, hyperlink, button) and function (e.g. annotations) allows keyboard-only operation both with and without assistive technology.	N/A
Additional Information:	No interactive elements found in the entire book.
B. Each interactive element conveys information to assistive technology regarding the element's name, type, and status (e.g. "Play, button, selected").	N/A
Additional Information:	No interactive elements found in the entire book.
C. All instructions, prompts, and error messages necessary to complete forms are conveyed as text to assistive technology (or are rendered by an application such as a browser, media player, or reader that offers this functionality).	N/A
Additional Information:	No interactive elements found in the entire book.

# DETAILED ACCESSIBILITY EVALUATION REPORT using Non-Assistive Technologies

**Non-Assistive Technologies (NAT) Evaluations** applies only native or basic tools and software such as the keyboard and Narrator in the accessibility evaluation process. These non-assistive technologies are readily available and used by the general public.

#### 1. Accessibility Documentation

A. The organization providing the online materials has a formal accessibility policy.	Fail
Additional Information:	No content found.
B. The organization providing the online materials has an accessibility statement.	Fail



Additional Information:	No content found.
C. An Accessibility Evaluation Report is available from an external organization.	Fail
Additional Information:	No content found.

#### 2. Text Access

A. The text of the digital resource is available to assistive technology that allows the user to enable text-to-speech (TTS) functionality.	Pass
Additional Information:	5/5 pages passed. 2 pages from MUS105Mod2bReadAboutItListentoIt checked, 3 pages from MUS105Mod2lCorporateOwnedRecordLabels checked. All text were read correctly with correct order.

## 3. Text Adjustment

A. Text is compatible with assistive technology.	Pass
Additional Information:	1/1 page passed. One page from from MUS105Mod2bReadAboutItListentoIt checked. All text on the page can adjust its size using grow/shrink font function with MS word.
B. The resource allows the user to adjust the font size and font/background color (or is rendered by an application such as a browser, media player, or reader) that offers this functionality).	Pass
Additional Information:	5/5 pages passed. 2 pages from MUS105Mod2bReadAboutItListentoIt checked, 3 pages from MUS105Mod2lCorporateOwnedRecordLabels checked. All text were able to change both font and background color correctly with MS word.



## 4. Reading Layout

A. Text of the digital resource is compatible with assistive technology that allows the user to reflow the text by specifying the margins and line spacing (or is rendered by an application such as a browser, media player, or reader that offers this functionality).	Fail
Additional Information:	0/1 page passed. One page from from MUS105Mod2bReadAboutItListentoIt checked. No reflow of text for entire page when zooming in and out with MS word.
B. If the digital resource is an electronic alternative to printed materials, the page numbers correspond to the printed material.	N/A
Additional Information:	No printed material available to compare.

## 5. Reading Order

A. The reading order for digital resource content logically corresponds to the visual layout of the page when rendered by assistive technology.	Pass
Additional Information:	5/5 pages passed with minor issues. 2 pages from MUS105Mod2bReadAboutItListentoIt checked, 3 pages from MUS105Mod2lCorporateOwnedRecordLabels checked. All text were read correctly with correct order. However, when selecting all text on MUS105Mod2lCorporateOwnedRecordLabels it stopped half way through page two of the document. When selected separately it worked just fine. MS word "Speak" used to evaluate.

## 6. Structural Markup/Navigation

A. The text of the digital resource includes	Fail
markup (e.g. tags or styles) that allows for	
navigation by key structural elements	



(chapters, headings, pages) using assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality).	
Additional Information:	0/5 pages passed. 10 headings found in the 5 pages, only one heading was recognized as "HEADING" in page 2 of MUS105Mod2lCorporateOwnedRecordLabels when using MS word Accessibility checker. Hyperlink in MUS105Mod2bReadAboutItListentoIt was recognized as heading when it's not suppose to be. 2 pages from MUS105Mod2bReadAboutItListentoIt checked, 3 pages from MUS105Mod2lCorporateOwnedRecordLabels checked. MS word "Accessibility checker" and manual checked used to evaluate.
B. The text of the digital resource includes markup for bullets and numbered lists that is compatible with assistive technology (or is rendered by an application such as a browser, media player, or reader that offers this functionality).	Fail
Additional Information:	0/3 lists passed. Only 3 lists found. MS word accessibility checker did not recognize any lists from the two documents as lists. Lists in the book were not coded correctly.2 pages from MUS105Mod2bReadAboutItListentoIt checked, 3 pages from MUS105Mod2lCorporateOwnedRecordLabels checked. MS word and NVDA used in the evaluation.
C. If the text of the digital resource is delivered within an ebook reader application, a method is provided that allows users to bypass the reader interface and move directly to the text content that is compatible with assistive technology.	N/A
Additional Information:	No additional eReader is used for the evaluation.



### 7. Tables

Additional Information:	No table found in the entire book.
that offers this functionality).	
such as a browser, media player, or reader	
technology (or are rendered by an application	
in a manner that is compatible with assistive	
styles) that identifies row and column headers	
A. Data tables include markup (e.g. tags or	N/A

## 8. Hyperlinks

A. In-book links take you to a location within the textbook. For example, the table of contents would be considered in-book links and embedded links take you to the correct location in the book.	N/A
Additional Information:	No within book links found.
B. Live hyperlinks take you to any website or webpages external to the book.	Fail
Additional Information:	Average from functionality and description.
C. Live links take you to the correct webpage that is functioning properly.	Fail
Additional Information:	0/20 live links passed. 1 link from MUS105Mod2bReadAboutItListentoIt checked (0/1 worked properly), 19 links from MUS105Mod2lCorporateOwnedRecordLabels checked (0/19 worked properly). Also, Tabs does not work when trying to use keyboard only navigation. MS word Accessibility checker did not recgonize any link from the book as hyperlinks when they appear to be. MS word "Accessibility checker" and manual check were used to evaluate.
D. Live links are descriptive enough for the users to know where it should take them.	Fail
Additional Information:	0/20 live links passed. 1 link from MUS105Mod2bReadAboutItListentoIt checked (0/1 have description), 19 links from



MUS105Mod2lCorporateOwnedRecordLabels
checked (0/19 have proper decription, all 19 links
have a description but not sufficient enough for users
to know where the link is taking them to). Also, Tabs
does not work when trying to use keyboard only
navigation. MS word "Accessibility check" and
manual check used to evaluate.

#### 9. Color and Contrast

9. Color ana Contrast	
A. All information within the material that is conveyed using color is also available in a manner that is compatible with those that do not perceive color, and information conveyed by color is also conveyed in other ways.	Pass
Additional Information:	2/2 pages passed. 2 pages from MUS105Mod2lCorporateOwnedRecordLabels checked. Hyperlink that was presented with color (blue) are also underlined. No other color were used to convey information.
B. Information is conveyed from the sub- categories for contrast.	Pass
Additional Information:	Average from header and text contrast.
<ul> <li>C. Contrast for headers passed WCAG AA standards for large texts (contrast ratio 3:1).</li> </ul>	Pass
Additional Information:	2/2 pages passed. 2 pages from MUS105Mod2lCorporateOwnedRecordLabels checked. All header were black on white and they all passed AA standard using CCA tool. MS word and CCA tool used.
D. Contrast for text passed WCAG AA standards for normal texts (contrast ratio of 4.5:1).	Pass
Additional Information:	2/2 pages passed. 2 pages from MUS105Mod2lCorporateOwnedRecordLabels checked. All text were black on white which pass AA standards, only exceptions are they hyperlinks, but



	all hyperlinks were in blue that also passes AA standards. MS word and CCA tool used to evaluate.
E. Contrast for simple images (for example, images of atoms) passed WCAG AA standards (contrast ratio of 4.5:1).	N/A
Additional Information:	No images found in the entire book.

## 10.Language

A. The text of the digital resource includes	N/A
markup that declares the language of the	
content in a manner that is compatible with	
assistive technology.	
Additional Information:	Detail properties not available for this book. Cannot
	evaluate if there is a language markup or not.
B. If the digital resource includes passages in a	N/A
foreign language, these passages include	
markup that declares the language in a	
manner that is compatible with assistive	
technology.	
Additional Information:	No additional language found in the entire book.

## 11.Images

A. Non-decorative images have alternative text that is compatible with assistive technology (or is rendered by an application such as a browser, media player, or reader that offers	N/A
this functionality).	
Additional Information:	No images in the entire book.
B. Decorative images are marked with null	N/A
alternate text or contain markup that allows	
them to be ignored by assistive technology.	
Additional Information:	No images in the entire book.
C. Complex images, charts, and graphs have	N/A
longer text descriptions that are compatible	



with assistive technology (or are rendered by an application such as a browser, media player, or reader) that offers this functionality).	
Additional Information:	No images in the entire book.

### 12.Multimedia

A. A synchronized text track (e.g. open or closed captions) is provided with all video content.	N/A
Additional Information:	No multimedia found in the entire book.
B. A transcript is provided with all audio content.	N/A
Additional Information:	No multimedia found in the entire book.
C. Audio/video content is delivered via a media player that is compatible with assistive technology. This includes support for all criteria listed in Section 15 below.	N/A
Additional Information:	No multimedia found in the entire book.

## 13.Flickering

A.	The digital resource content does not contain	Pass
	anything that flashes more than three times in	
	any one-second period.	
	1. 6	
Additio	onal Information:	No flickering content.

## 14.Science, Technology, Engineering, and Math (STEM)

A. STEM figures have appropriate markup that	N/A
indicates that the image is a figure.	
Additional Information:	No STEM content found in the entire book.
B. STEM graphs have appropriate markup that indicates that the image is a graph.	N/A
Additional Information:	No STEM content found in the entire book.



C. STEM equations have appropriate markup that indicates that the image is an equation.	N/A
Additional Information:	No STEM content found in the entire book.
D. STEM tables have appropriate markup that indicates the image is a table.	N/A
Additional Information:	No STEM content found in the entire book.
E. STEM figures have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	N/A
Additional Information:	No STEM content found in the entire book.
F. STEM graphs have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	N/A
Additional Information:	No STEM content found in the entire book.
G. STEM equations have appropriate notation markup that conveys both the notation (presentation) and meaning (semantics) of the STEM content.	N/A
Additional Information:	No STEM content found in the entire book.
H. Assistive technology used can access the content from the STEM tables.	N/A
Additional Information:	No STEM content found in the entire book.

## 15.Interactive Elements

A. Each interactive element (e.g. menu,	N/A
hyperlink, button) and function (e.g.	
annotations) allows keyboard-only operation	
both with and without assistive technology.	
Additional Information:	No interactive elements found in the entire book.
B. Each interactive element conveys information	N/A
to assistive technology regarding the	



element's name, type, and status (e.g. "Play,	
button, selected").	
Additional Information:	No interactive elements found in the entire book.
C. All instructions, prompts, and error messages necessary to complete forms are conveyed as	N/A
text to assistive technology (or are rendered by an application such as a browser, media	
player, or reader that offers this functionality).	
Additional Information:	No interactive elements found in the entire book.

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