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Section 508 Compliance and Online Course Content

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Agenda

1. Overview of Section 508
2. 508 Standards and Accessible Course Design
3. Accessible Course Content

What is Section 508?

- U.S. Federal Law
- Section 508 of Rehabilitation Act Amendments of 1998 states in part: *“Electronic information and data must be equally accessible to individuals with and without disabilities.”*

508, 504 and ADA

- Section 508
Rehabilitation Act Amendments of 1998
US Federal Law and provides standards for compliance
- Section 504
Rehabilitation Act of 1973
Prohibits discrimination on basis of disability by recipients of federal funds
- Americans with Disabilities Act (ADA)
Law in 1990 to make American Society more accessible to people with disabilities
Prohibits discrimination based on disability

USG Resource

- Must-read document: [Higher Education, the Americans with Disabilities Act and Section 508](#)

Complaints and Lawsuits

- US Department of Education
Office of Civil Rights
- US Department of Justice
Office of Civil Rights
- Lawsuit in State or Federal Court

Higher Education Lawsuits and Civil Rights Complaints

- Jun 2011 – Florida State University, Lawsuit
- Mar 2011 – Northwestern University and New York University, Civil Rights Complaint
- Nov 2010 – Penn State, Civil Rights Complaint
- May 2010 – 9 Law Schools, Civil Rights Complaint
- Jul 2009 – Arizona State University, Lawsuit
- May 2009 – 5 California Universities, Civil Rights Complaints

Standards and Guidelines

- Section 508 (required)
Rehabilitation Act Amendments of 1998
US Federal Law, provides standards for compliance
Section 508 Refresh is underway
- WCAG 2.0 (endorsed)
Web Content Accessibility Guidelines
International Guidelines published by Worldwide Web Consortium (W3C)

Similar, but not the same

Recommendations

- Newcomers to 508
Focus on existing Section 508 Standards
[WebAIM Section 508 Checklist](#)
Review WCAG 2.0 Level A and Level AA
[WebAIM WCAG 2.0 Checklist](#)
- All: remain aware status of Section 508 Refresh
[Join Web Accessibility Group \(WAG\) listserv](#)

Keeping Web Accessibility in Mind produced by WebAIM

[WebAIM Video](#)

Section 508 Standards and Accessible Course Design

Benefits of 508 Compliance

- Accessible to individuals with disabilities
- Comply with US Federal Law
- More usable for all learners using wide variety of technologies
- Accommodate different learning styles
- Assist speakers of English as second language

- Captions increase comprehension for all learners
 - Captions, Text Transcripts are Searchable
 - Recognize and research unfamiliar terms
 - Content accessed in situations not audio-friendly

508 and Online Courses

- 1) Framework (Blackboard Vista)
- 2) Accessible Design and Navigation
- 3) Accessible Course Content

Include Accessibility Statement

- Syllabus and/or Blackboard Vista Homepage
- Sample Statements:
 - Check with your institution's disability resource center
 - UGA Disability Resource Center, [Sample Access](#)
 - Chico State University, [Accessibility Statement](#)

Course Structure

- Follow a simple and consistent course design
 - Organize related content in Folders or Learning Modules
 - Establish a consistent layout
 - Same icon layout for all Folders
 - Same display options for all Learning Modules
 - Consistent color scheme
 - Logical order of content
 - Icon Layout: Build tab, Page Options, Customize Display (change all folders, or set as default), Save.
 - Display Options: Build tab, Learning Modules, select Action Menu, Edit Properties (including Title), Save

Course Layout

- Design for Ease of Use
 - Keep homepage simple and uncluttered
 - Minimize number of icons on homepage
 - Design for minimal scrolling; avoid horizontal scrolling and minimize vertical scrolling
 - Use both icon (image) and link text on homepage
 - Provide unique and descriptive titles (icons, content)
- Build tab: Action Menu, Customize Link (to change link title)

Navigation

- Ensure Course Menu is organized and up-to-date
 - Add Search tool and move to top of Course Menu
 - Move frequently used tools just below Search tool
 - Remove all Blackboard Vista Tools not currently used
 - Build (or Teach) tab: Manage Course, Tools to add/remove, or Course Menu to reorganize, Save

Orientation Document

- Provide Orientation Document on Homepage
 - Describe overall layout of course
 - Types of content available in course
 - Features or tools that will be used or required
 - Include Accessibility Statement here
 - Provide contact information and welcome suggestions on how to increase accessibility
- Example: About this Site

Color Scheme

- Choose colors carefully
 - Use Bb “High Contrast” color scheme
 - Avoid using color alone to convey important information
 - **Ex: avoid color coding with red/green, pastels**
 - Applies to: Text/Background, Graphics, Documents
 - Tool: Run [Vischeck](#) on images and web pages
 - Build (or Teach) tab: Manage Course, Colors, select High Contrast, Apply

Good vs. Poor Contrast

- <http://www.w3.org/WAI/wcag-curric/sam27-0.htm>

Color Coded Map

<http://webaim.org/techniques/images/color>

Backgrounds

- Keep backgrounds simple
 - Homepage, Documents, PowerPoint slides, etc.
 - Ensure background doesn't overpower text
 - Ensure high contrast between text and background
 - Background Overpowers Text

Screen Flicker, Moving or Blinking Text

- Ensure no component of web content flashes more than 3 times per second
 - Avoid flicker frequency >2Hz and <55Hz
 - Because difficult to determine, avoid flicker, moving or blinking text, animated GIFs, etc.

E-mail

- Allow students to use external email systems
- “Top post” when replying to an email, or remove the original post altogether
- In-line response: remove as much as possible of original text and prefix remaining text with something other than punctuation, like quotation marks. Instead use >

Inaccessible Tools (Bb Vista 8)*

- Chat / Whiteboard

- Avoid required participation in real-time sessions
 - Grading Forms
 - Provide alternate means of communicating with students who cannot access Grade Forms (Ex: Comments can be emailed to students)
 - Who's Online
- *From *Using Blackboard Vista Accessibly*, California State University, Chico

Wimba

- Offers a fully Accessible Interface
 - For more information, please read the [Accessibility Best Practices Guide for Wimba Classroom](#)
- [Blackboard Collaborate Accessibility](#)

Creating Accessible Course Content

Popular Content Formats

- Documents:
 - Word
 - Adobe PDF
 - PowerPoint
- Multimedia:
 - Audio Only
 - Audio+Video
 - Audio Narrated PowerPoint Presentations
 - Flash Tutorials

Helpful Resources

- US Department of Health and Human Services
- Section 508 Checklists
- <http://www.hhs.gov/web/508/checklists/index.html>
 - Word Document 508 Checklist
 - PDF File 508 Checklist
 - Multimedia File 508 Checklist
 - HTML 508 Checklist
 - PowerPoint 508 Checklist
 - Excel 508 Checklist
- Testing Documents for 508 Compliance
 - <http://www.hhs.gov/web/508/testdocuments.html>
- WebAIM, Articles on making content accessible
 - <http://www.webaim.org/articles>

All Documents

- HTML is typically the most accessible and preferred document type

- Recommendation: provide text content in more than one format (ex: Word and PDF, or PPT and PDF, PDF and HTML, Word and HTML, or PPT and HTML, etc.)
- Ensure readability
 - Avoid complex sentences
 - Divide large blocks of information into smaller more manageable sections
 - Use proper numeric or bulleted lists
 - Resist urge to change font sizes or color to indicate headings or visual structure; instead use Styles (Word, Open Office) or Tags (Adobe Acrobat) for semantic structure
- Standard font size 12 pt
 - Font type: sans-serif (such as Arial, Verdana, Tahoma)
 - http://en.wikipedia.org/wiki/List_of_typefaces#Sans_serif
- Document Title, Subject, Author, Keywords
- Default Language specified (English, other)
- Create structure using Styles or Tags:
 - Use: Headings, Paragraph, Strong, Emphasis
 - Don't use: Font size, Font type, Indent, Bold, Italic
- Descriptive hyperlinks
- ALT text for images (100 characters or less)
- Long Description when ALT text is insufficient
- Tables have row and column headers; data cells are associated with row and column headers
- Table of Contents with links to text content

Semantic Structure

- Semantic structure is *critical* for accessibility
- Use Styles (or Tags) to create structure:
 - Headings (instead of bold or larger font)
 - Paragraph-Normal (instead of indent or tab)
 - Strong (instead of bold)
 - Emphasis (instead of italics)
 - Quote (instead of italics)
 - Hyperlink (instead of underlining text)
- Actual lists (instead of tab, indent)

Headings

- H1 Major section, should match title
 - H2 Section
 - H3 Subsection
 - H4 through H6 generally not used, but are available if needed
- HTML document should have only one H1
- Word may use H1 for each major section of longer documents
- Don't skip downward levels (Ex: H1 should always be followed by H2 and H2 by H3 within a section)

Descriptive Hyperlinks

- Avoid using "click here" or "email me"
- Link text should make sense out-of-context

Good: There were many inventions during the Industrial Revolution of history

Bad: For information about the Industrial Revolution [click here](#)

- Avoid placing links too close together
- Avoid too many hyperlinks in a single document or web page (“34 is a lot”)
- True for all document types and Bb Vista links

Text Equivalents

- Provide text equivalents for all non-text elements
 - Images, charts, graphs, audio files, etc.
 - Provided via ALT text or Long Descriptions
 - ALT text provides a clear, concise description of the image using approximately 100 characters or less
 - Long Descriptions are used when ALT text is insufficient
 - Avoid using “image of” or filename as ALT text
 - ALT text can be added to image properties in HTML, Word, PDF, PowerPoint, etc.

Text Equivalent Resources

- WebAIM: [Appropriate use of Alternative Text](#)
- WebAIM: [Long description for a complicated chart](#)

Tables

- Keep tables simple, especially Word and PPT
 - Tables require both row and column headers
 - Caption contains title of Table
 - Summary contains succinct overview of Table
 - Data cells must be associated with both row and column headers (only possible in HTML and PDF)

PowerPoint

- To achieve structure:
 - Use standard layouts (slide titles and bulleted lists)
 - Use Slide Title on all slides (i.e. Headings)
 - Avoid using Text Boxes
- ALT text for images
- Use Notes to provide Long Descriptions of images
- Simple data tables may be accessible, but include Long Descriptions and link to the PPT file
- Avoid automatic slide transitions
- Simple slide transitions acceptable, if needed
- Avoid content that is scrolling or causes flicker
- Embedded video must be captioned
- Option for creating alternate format:
 - Use Outline View and copy/paste slide text into HTML or other program (edits needed)
- Save as PPT file (not PPTX)

Adobe PDF Documents

- Can be time consuming and inherently difficult
- Be sure a PDF is required or use HTML, Word, etc.

- Original file should be accessible before “Save As” PDF
Note: Print to PDF does not render accessible document
- Scanned text is not accessible as PDF
Convert to OCR, clean artifacts, add Semantic Structure
- Follow general guidelines for All Documents
- Add semantic structure using “Tags”
Review tags for accuracy, edit and correct mistakes
- Adobe Acrobat built-in Accessibility Checker
May give false results
Manual checks are required even if built-in accessibility checker indicates “no problems”
- WebAIM: [PDF Accessibility](#)
- California State University System, [Word and PDF Accessibility](#)
- [Adobe Accessibility](#)

Multimedia Content

- Audio Only
Text-only Transcript of audio component
Transcript must be an accessible document
- Audio+Video
Synchronized captions are required
Text-only Transcript of audio component
Video Description (unless talking head)
Example: <http://www.hort.uga.edu>
Example (talking heads): <http://webaim.org/intro/#people>
Can combine Text Transcript and Video Description: [W3C Combined Example](#)
- Audio-narrated PowerPoint
Text-only Transcript of audio component
Slide Descriptions (long descriptions of images)
Synchronized Captions
Captioned presentations can be created with Camtasia Studio, www.techsmith.com

Captions vs. Subtitles

- Captions
Assumes viewer cannot hear ambient sounds, include references
Accessible
Separate text stream (independent of video)
Archived, indexed, searched
Most often appear below the video
Can be turned on/off
- Subtitles
Assume viewer can hear ambient sounds but not understand dialogue
Not accessible
Part of the video stream
Subject to loss of quality during video compression and delivery
Most often overlaid so may block important visual cues
Cannot be turned off

Multimedia Resources

- Automatic Sync Technologies
Education pricing for transcription and caption services
Handout available at <http://wag.uga.edu> (under Resources, Additional Resources)
www.automaticsync.com
- Camtasia Studio
Education pricing for video production software
File size, video length limitations
www.techsmith.com
- MAGpie
Free software from WGBH
[WGBH Accessible Digital Media Guidelines](#)
[MAGpie download](#)
- Universal Subtitles (free, open source)
Overlays text, may miss important visual information
Caption other people's web video
Post to any website, including YouTube
- YouTube (results are unreliable at this time)

Other

- Flash Tutorials
Accessibility should be part of original design
Consult your Flash developer
WebAIM: [Creating Accessible Flash Content](#)
- Math Equations
Example: [CATEA at Georgia Tech, Model of Accessible Course Design, Intro to Fluid Mechanics Course](#)

Recommended Reading

- [Distance Education Accessibility Guidelines](#) (published by California Community Colleges)

Contact Information

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Please post questions to WAG Listserv
To join visit <http://wag.uga.edu>

Link to 2-hour USG Webinar that accompanies this handout is available at <http://itunes.usg.edu/>
Allow the iTunesU Store to open. Select icon for "Online Faculty Development Series 2011-2012", then you *must* select the **Video** tab. Note: the default setting opens a Preview only; to review the entire captioned recording, you must select the **Video** tab and select "Section 508 Compliance and Online Course Content".