## Contents

**Section 508 Compliance and Online Course Content** ................................................................. 2
  - Agenda................................................................................................................................. 2
  - What is Section 508? ............................................................................................................. 2
  - 508, 504 and ADA ............................................................................................................... 2
  - USG Resource ....................................................................................................................... 2
  - Complaints and Lawsuits ..................................................................................................... 3
  - Higher Education Lawsuits and Civil Rights Complaints .................................................... 3
  - Standards and Guidelines ................................................................................................. 3
  - Recommendations .............................................................................................................. 3
  - Keeping Web Accessibility in Mind produced by WebAIM ................................................ 3

**Section 508 Standards and Accessible Course Design** ......................................................... 3
  - Benefits of 508 Compliance ............................................................................................... 3
  - 508 and Online Courses ..................................................................................................... 4
  - Include Accessibility Statement ......................................................................................... 4
  - Course Structure ................................................................................................................. 4
  - Course Layout ....................................................................................................................... 4
  - Navigation ............................................................................................................................ 4
  - Orientation Document ......................................................................................................... 5
  - Color Scheme ....................................................................................................................... 5
  - Good vs. Poor Contrast ........................................................................................................ 5
  - Color Coded Map ................................................................................................................ 5
  - Backgrounds ........................................................................................................................ 5
  - Screen Flicker, Moving or Blinking Text .............................................................................. 5
  - E-mail ................................................................................................................................. 5
  - Inaccessible Tools (Bb Vista 8)* .......................................................................................... 5
  - Wimba ................................................................................................................................. 6

**Creating Accessible Course Content** .................................................................................. 6
  - Popular Content Formats .................................................................................................... 6
  - Helpful Resources ............................................................................................................... 6
  - All Documents .................................................................................................................... 6
  - Semantic Structure ............................................................................................................ 7
  - Headings ............................................................................................................................... 7
Section 508 Compliance and Online Course Content

Janet Sylvia, OCTS – CAES, and UGA Web Accessibility Group, Co-Leader

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
  - 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
- WebAIM, Articles on making content accessible
  - [http://www.webaim.org/articles](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)
• 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](http://wag.uga.edu) (under Resources, Additional Resources)
  [www.automaticsync.com](http://www.automaticsync.com)

• **Camtasia Studio**
  Education pricing for video production software
  File size, video length limitations
  [www.techsmith.com](http://www.techsmith.com)

• **MAGpie**
  Free software from WGBH
  [WGBH Accessible Digital Media Guidelines](http://wag.uga.edu)
  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](http://www.webaim.org/technologies/accessibility/flash)

• **Math Equations**
  Example: [CATEA at Georgia Tech, Model of Accessible Course Design, Intro to Fluid Mechanics Course](http://www.catea.uga.edu)

Recommended Reading

• [Distance Education Accessibility Guidelines](http://wag.uga.edu) (published by California Community Colleges)

Contact Information

**Janet Sylvia, OCTS – CAES, University of Georgia**
[jsylvania@uga.edu](mailto:jsylvania@uga.edu)

**Please post questions to WAG Listserv**
To join visit [http://wag.uga.edu](http://wag.uga.edu)

Link to 2-hour USG Webinar that accompanies this handout is available at [http://itunes.usg.edu/](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”.

10