

## What is ADA Accessibility?

Curriculum accessibility refers to designing course work that is barrier-free. To ensure ADA accessibility we must design our course materials in a way which allows access to course documents for our students with a physical, visual, learning or auditory disability. Designing accessible materials also benefits students who are not disabled by offering many different modes of instruction, one of which may better suit their individual learning style. While there is software available to help us design accessible coursework, no piece of software is able to quickly ensure accessible design. The sections below will explain how assistive technology is used and describe how curriculum should be designed to meet accessibility design standards.

This orientation is meant to be a brief introduction to accessible design. Please contact Angela Tran (SAC) or Scott James (SCC) to help you with your accessibility implementation.

**Note: Distance education courses must be accessible before they are offered to students since students are not required to disclose a disability before taking an online course.**

## Assistive Technology

Disabled students can be very high tech, and technology advancements have enabled students in a variety of ways. Assistive technology can convert text to audio or Braille, enlarge or enhance text and images, provide greater contrast, or convert the spoken word into electronic text or computer commands.

### Technology for Visual Disability

Screen readers are software applications which are used by students with a visual deficit. Screen readers allow our students to use a computer without the need for a visual interface or even a mouse. Every icon, line of text, hyperlink, or image is converted by the screen reading application into speech. The user interacts with a computer using a variety of hot-keys and common keyboard shortcut keys to navigate computer applications and access information.

### Technology for Learning Disability

Technology associated with a learning disability is very similar to screen reading software. Students with a reading deficit will commonly use a computer application that will convert text material into computer audio. Text material can also be highlighted as it is being read to help maintain focus and assist with text tracking. In Addition, these technologies include note taking and writing tools.

### Technology for Physical Disability

Computers are commonly accessed with a keyboard and a mouse. Students who cannot effectively use a traditional keyboard or mouse can use software designed to convert their voice into computer commands or text. Keyboard modification software or alternative keyboards, such as a one-handed keyboard may be also are used.

## Technology for Auditory Disability

The web as well as distance education are quickly becoming multimedia rich. Podcasts and videos are now commonly utilized by distance education instructors to deliver their lectures. Students with an auditory disability may need a transcript of the lecture or closed captioning of the video to access the audio portion of these lectures.

## Blackboard and Accessibility

Blackboard is an accessible platform. There is nothing you can do to make Blackboard more or less accessible. All information (i.e. quizzes, announcements, documents, multimedia, etc.) you upload to Blackboard, though, ***must be designed to comply with accessible design standards.***

## Common Accessibility Considerations

### Web

Many websites are not ADA accessible. Most commonly, non accessible websites are designed with visual elements that are poorly described for users accessing the site with a screen reader. Further, web designers commonly design their websites visually and do not include proper formatting for their headings, font styles, frames, tables, etc. When websites are not designed properly, they can become inaccessible to those with low vision, dyslexia, blindness, or cognitive-perceptual difficulties.

Third party websites used in your course should be carefully evaluated for accessible design. If they are found to be designed improperly, we will need to create and provide alternate formats for students with a disability, since third party web resources are not within our programmatic control.

### Images

Images are not accessible to those with a visual disability. To make an image accessible, it must be described. The best way to make images accessible is to briefly describe the overall image and then describe any detail you are trying to convey to your students by presenting this image. Images that are used only to make a document look more interesting can be very briefly described (such as 'large yellow smiley face'). Image descriptions also help students with learning disabilities and autism.

Images in MS Word, PowerPoint, Excel (usually graphical images), within Blackboard, or on the Web, use a tag called Alternate Text Attribute, or Alt Tag to provide image information to screen reader users. Alt Tags must be added before these files are uploaded to Blackboard.

### Multimedia

Multimedia presentations are particularly useful to students with a learning disability; however, it may be problematic for students with a visual or auditory disability. Please contact Angela or Scott if you plan on designing or deploying multimedia.

## Audio

Podcasting is usually a simple voice recording that is delivered over the web. Text transcripts should be provided with the Podcast.

## Video

**All videos need to be closed captioned.** Please contact Angela or Scott if you need videos closed captioned. Descriptive audio may be required if the video is visually descriptive.

## Flash/Animation

Adobe Flash essentially animates pictures. Flash presentations must have Alt Tags and appropriate image descriptions. Flash also has the tendency to flicker. Flickering images have been known to distract or even cause a seizure. Please avoid any flickering effects and allow Flash movies or animations to be stopped or bypassed to a non-Flash webpage. Closed captioning of audio is required when audio is used.

## Hyperlinks

Hyperlink names must be descriptive as to the end location or the function of the link. Students using a screen reader will access hyperlinks by their name. An example of a descriptive hyperlink would be 'Online Records,' which would take the student to the Online Records page. Avoid 'Click Here' links.

## Color and Contrast

Colors can be of great benefit for some students, and it can quickly draw the eye to a specific important area of text; however, when using color, it must not be the only way to convey extra information. For example, "Exam Dates are in Red." Instead, use "Exam Dates are in Red and have an \* next to them." In addition, when using color, make sure there is high contrast with the background for easy viewing. Be careful not to use color combinations that clash against each other as it may give the appearance of moving, flickering, or jumping on the page.

## Time

Some students may be approved for extended time to complete their tests. Online students are still required to submit proof of this DSPS accommodation to their instructor. Please contact the Distance Education department at SAC or SCC to discuss implementing extended time within Blackboard.

## Data Tables and Graphs

Data tables and graphs usually represent data in a very complex and visual manner. Screen readers rely on proper column and row *headers* to help visually impaired students navigate the table of information. Graphs should be treated as if they are an image, and a long description of the graph or a tabular format of the data will be required along with any visual trends that are being displayed.

## **Documents**

### **Text Style**

Text formatting is very important visually and for those with a visual impairment. Text styles include Headings, Body Text (or Normal), Index Levels (used for lists), Bullets, Numbering, Italics, Bold, Underline, etc. Headings, for example, are designed to be a visual differentiation of text material. Text with a Heading 1 format is larger, bold, and spaced out. This sets the text apart from the body text. Heading level 2 is smaller than Heading 1, but is still much larger than body text and is often bold and/or italicized. These graphical formats visually draw the attention of the reader to appropriate sections of the document being read which saves the reader a lot of time and confusion.

Screen reader software uses these same Heading attributes to present important information as well. Headings, bold, italics, and underlines are all voiced to users of screen readers. In fact, proper text style formatting is a primary benefit to students with a visual deficit, since information can be sorted by a screen reader by its Heading.

### **MS Word**

Remember to add image Alt Tags and proper Text Style.

### **MS PowerPoint**

MS PowerPoint is a very visual medium. Provide image descriptions and a text outline of your presentation.

### **Adobe PDF**

PDF documents can be accessible or completely inaccessible. Watch out for scanned images of documents that have been saved as a PDF. These scans are just pictures of text, which is not accessible to a student using a screen reader.