

# ONLINE COURSE ACCESSIBILITY CHECKLIST



**NCCCS Virtual Learning Community** 

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# **Online Course Accessibility Checklist**

The following checklist serves as a guide in evaluating online courses for compliance with accessibility guidelines. This checklist follows guidelines to meet the WCAG 2.0 AA compliance standards.

P=Pass NI=Needs Improvement NA=Not applicable in this document

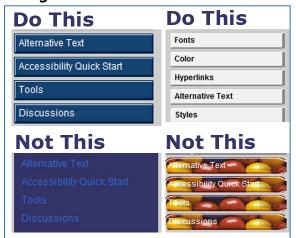
Accessible Documents and Content	P	NI	NA
Using Heading styles and other built-in structures like ordered and unordered lists.			
Using real text not text that is a graphic.			
Using basic, simple, easily-readable fonts.			
No blinking or moving text			
Choices of text size, font, and foreground and background colors enhance readability.			
Using alternative text for all images.			
Accessible File Names and Hyperlinks	P	N	NA
Using alphanumeric (abc, ABC, 123). You may also use the dash (-) when naming files.			
Internet resources, including videos, can be navigated or operated with keyboard shortcuts.			
Does NOT include spaces.			
Does NOT include any special characters such as: &, () % # \$ ¢ / \ { } [ ] <> : ; @			
File names should not exceed 31 characters.			
Hyperlinks convey: Where is the link going? Why is the link provided? What else happens?			
Hyperlinks that open in a new window are clearly marked as such.			
Accessible Images, Charts, Graphs, and Diagrams	Р	NI	NA
Tables have a designated header row, include a title/caption. Verify the reading order using			
the tab key. Suggested: Title/caption is repeated as alternative text.			
Alternative text is provided for all images, charts, graphs, and diagrams.			
Alternative text is no more than 125 characters.			
The alternative text is meaningful and replaces (not describes) the images, charts, graphs, or			
diagrams.			
A long description is included in images, charts, graphs, and diagrams that are more complex.			
This same description is available somewhere in the document that all readers may access.			
Accessible Video and Audio Checklist	P	N	NA
Transcripts are provided for all linked and embedded videos and audio files.			
Audio and/or video files are not set at Auto start and do not loop.			
Linked and embedded multimedia clips are captioned and audio descriptions are included			
when needed.			
A link to the plugin is provided where needed.			
PowerPoint Specific Accessibility	P	N	NA
The slide show has been created using a built-in PowerPoint slide layouts.			
Each slide has a unique title.			
All content in the slide show appears in the outline view of the show.			
All the information appearing in the outline view is in the same order as it appears on the			
slides.			
All slide notes contain appropriate descriptions of images, graphs, tables, and charts that			
appear on the slides.			
All word art has been replaced with real text, or a text alternative is provided in the notes			
pages.			

# **Accessibility Checklist Examples**

# **Course Design**

## **Color Contrast**

Course theme or template provides adequate color contrast between background and text.

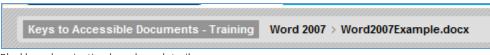




# **Navigation**

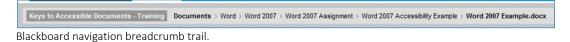
Course navigation is simple and consistent. Ideally, all content is within 3 clicks of the main course page. The example below is from Blackboard. In Moodle, all content is linked from the course home page.

## **Do This**



Blackboard navigation breadcrumb trail.

#### **NOT THIS**



## File Names

# Appropriate file naming conventions are implemented.

- 32 character max
- no spaces
- alphanumeric characters with the exceptions of hyphens (–) and underscores (\_)
- first character of file name is a letter

## **Do This**



accessOnlineTrainDft1.docx 📓

### **NOT THIS**



#1 Draft Faculty Accessibility Basics Online Teaching Course.docx

# **Keyboard Access**

# Course components and multimedia elements are controlled by the user. Controls can be manipulated with the keyboard.

Multimedia elements should not start when pages open.

# Tab Key Test

Anyone should be able to use the tab key to navigate through all elements of the course and all multimedia controls in the course. All components and controls can be manipulated without the use of a mouse. Please refer to 4D on page 29 for examples.

# **Fonts**

# Text is easy to read.

Sans Serif fonts are suggested (fonts without "feet" or ornamentations).

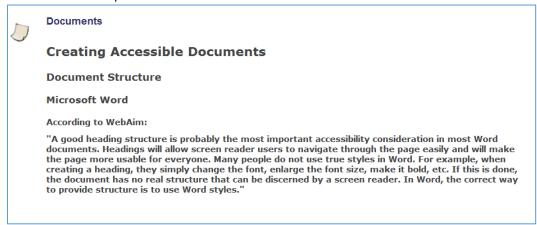
This is Arial
This is Verdana

### This is Tahoma

Verdana is considered the easiest to read of the basic Sans Serif fonts. It is larger, has more spacing between letters, and its characters are not easily confused.

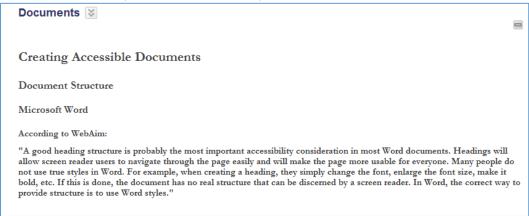
## **Do This**

Verdana Example in Blackboard



### **NOT THIS**

Garamond Example in Blackboard (font size is the same as Verdana example)



# Consistency

## No more than 3 different text fonts or colors are used throughout the course.

#### **Do This**

Maximum of three different text or font colors should be used.

Máximo de tres textos diferentes colores de la fuente se debe utilizar. SPANISH Maximum de trois textes différents ou les couleurs de police doivent être utilizes. FRENCH Maximal drei verschiedene Text-oder Schriftfarbe verwendet werden soll. GERMAN Massimo di tre testi diversi o colori dei caratteri devono essere utilizzati. ITALIAN Maximum aut ex tribus text font color utatur. LATIN

### **NOT THIS**

Maximum of three different text or font colors should be used.

Máximo de tres textos diferentes colores de la fuente se debe utilizar. SPANISH Maximum de trois textes différents ou les couleurs de police doivent être utilizes. FRENCH

Maximal drei verschiedene Text-oder Schriftfarbe verwendet werden soll. GERMAN
Massimo di tre testi diversi o colori dei caratteri devono essere utilizzati. ITALIAN
MAXIMUM AUT EX TRIBUS TEXT FONT COLOR UTATUR. LATIN

# Color

## Color is not used as the only means of conveying information.

Color blindness is the inability to perceive differences between some colors that others can distinguish.

#### Do This

Lines that must be memorized for the next quiz appear in bold and red print below.

#### LADY MACBETH

Whiles I stood rapt in the wonder of it, came missives from the king, who all-hailed me 'Thane of Cawdor;' by which title, before, these weird sisters saluted me, and referred me to the coming on of time, with 'Hail, king that shalt be!' This have I thought good to deliver thee, my dearest partner of greatness, that thou mightst not lose the dues of rejoicing, by being ignorant of what greatness is promised thee. Lay it to thy heart, and farewell.'

### **NOT THIS**

Lines that must be memorized for the next quiz are colored red in the excerpt below.

#### LADY MACBETH

Whiles I stood rapt in the wonder of it, came missives from the king, who all-hailed me 'Thane of Cawdor;' by which title, before, these weird sisters saluted me, and referred me to the coming on of time, with 'Hail, king that shalt be!' This have I thought good to deliver thee, my dearest partner of greatness, that thou mightst not lose the dues of rejoicing, by being ignorant of what greatness is promised thee. Lay it to thy heart, and farewell.'

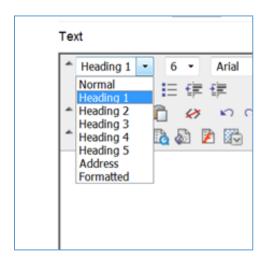
# Structure

## Content is logically structured.

Headings (Heading 1, Heading 2, Heading 3...) and lists are used appropriately to establish content hierarchy.

### **Do This**

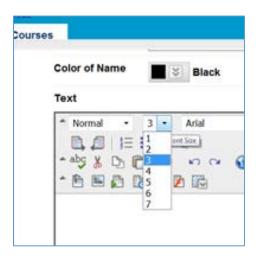
Always implement headings to establish content structure and hierarchy; nest headings properly. Don't apply headings out of order.



The structure that headings and lists create is visible and available to Assistive Technology in a HIERARCHICAL reading order.

## **NOT THIS**

Adjusting the color and size or applying bold and italics to text just changes the visual components of the page; it does not address structure or establish an accessible content hierarchy.



# Alternative Text (alt text)

# Non-text elements have meaningful alternative text and/or appropriate long descriptions.

Generally alternative text (alt text) is 8-80 characters long, but no more than 125 characters. Screen readers often do not read more than 125 characters of alternative text.

Replace, don't describe.

EXAMPLE: An architecture instructor might use the following image as an example of a type of Greek column.



## Do This:

Alt Text: Ionic Columns White House DC USA

## **Not This:**

Alt Text: White House

## **OR THIS**

Alt Text: whiteHouse.jpg

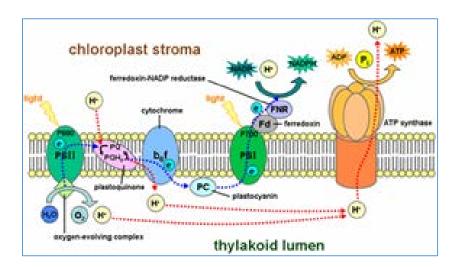
## Long Descriptions

Complex images, diagrams, graphs, and charts that require more information than can be conveyed in alternative text require long descriptions. Long descriptions are a text replacement for all of the visual information conveyed by the diagram, graph, or chart. When a long description is used, the alternative text should be a brief text-based summary of the information in the long description.

Long descriptions require the screen reader user to access an additional document. Unlike alternative text, it is not read immediately by the screen reader.

# Replace, don't JUST describe.

EXAMPLE: A biology instructor might use this diagram to convey the light-dependent reactions of photosynthesis at the thylakoid membrane.



## Do This:

Alternative Text (summarize): Light-dependent Reactions of Photosynthesis at the Thylakoid Membrane

# Long Description:

The light-dependent reactions take place on the thylakoid membrane inside a chloroplast. The inside of the thylakoid membrane is called the lumen, and outside the thylakoid membrane is the stroma, where the light-independent reactions take place. The thylakoid membrane contains some integral membrane protein complexes that catalyze the light reactions. There are four major protein complexes in the thylakoid membrane: Photosystem I (PSI), Photosystem II (PSII), Cytochrome c6f complex, and ATP synthase. These four complexes work together to ultimately create the products ATP and NADPH.

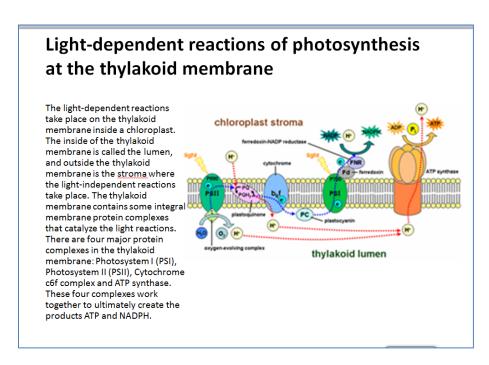
### **NOT THIS:**

Alternative Text: Chloroplast Stroma Thylakoid Lumen

## But You Can Do This:

It is also appropriate to include a description of the complex image, diagram, graph, or chart just below the image on the Web page, presentation, or document rather than using the long description option for the image. It would then be appropriate to summarize the description for the alternative text.

Alternative Text (summarize): Light-dependent Reactions of Photosynthesis at the Thylakoid Membrane



# **Blinking and Moving Elements**

# No moving or blinking animations or text should be present in course content.

Blinking/flashing elements can trigger an event in individuals who are prone to seizures. Blinking and animated elements are known to be distracting to all students regardless of cognitive or attention challenges.

## **Tables**

Tables are simple, used for data only, have logical left-to-right top-to-bottom reading order. Table headers are implemented when available.

### Do This

	Types of Ar	abian Horses	
TYPE OF ARABIAN HORSE	REGIONAL CHARACTERISTIC	PLACE OF HISTORIC ORIGIN	IMPORTANT REGIONAL ARABIAN HORSES
Egyptian	Extreme dish head and teacup muzzle	Historically, Egyptian breeders imported horses bred in the deserts of <u>Palestine</u> and the <u>Arabian peninsula</u>	Ghazala
Polish	Typey features with additional strength and size.	In the early 20th century, the military was involved in the breeding of Arabian horses throughout Europe, particularly in Poland	Witez II
Crabbet	Sturdy and sound conformation that permitted them to be ridden or driven without undue worry about breakdowns	Perhaps the most famous of all Arabian breeding operations founded in Europe was the <u>Crabbet Park Stud</u> of England, founded 1878.	Mesaoud

Never embed a table within a table. Screen readers always read embedded content first. Never use tables for visual layout purposes. Tables should be used to convey meaningful data.

## **Not This**



# **Hyperlinks**

# Hyperlink text clearly states the purpose of the link. Web addresses are also provided in text-only format.

Hyperlinks convey where the link is going, why, and what happens.

EXAMPLE: A science instructor is sending students to WRAL TV online to observe current local weather radar reports.

## **Do This**

WRAL Online Local Radar (opens in a new window) http://www.wral.com/weather/radar/

### **NOT THIS**

http://www.wral.com/weather/radar/

## **OR THIS**

Click Here

# Documents (.doc, .docx, .pdf)

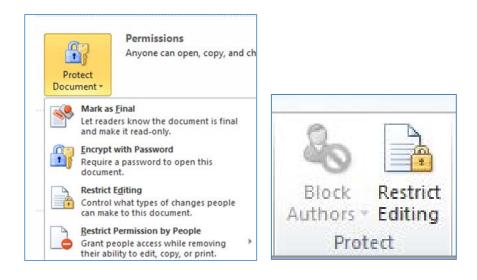
# **File Names**

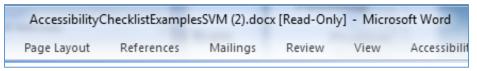
Appropriate Web file-naming conventions are implemented when documents will be accessed on the Web.

# Screen Reader Access

# Documents are NOT Read-Only. Screen readers cannot access the Read-Only format.

In Microsoft Office, marking a document or project as final and/or encrypting or restricting editing and permissions also blocks access to assistive technology.





Read Only is not accessible to a screen reader.

PDF's created in newer versions of Adobe Acrobat can be locked as long as screen reader access is enabled. Adobe Acrobat displays a warning as in the example below when screen reader access is disabled.



# Contrast

# Confirm adequate color contrast.

## **Do This**

The lower portion of the following image provides an example of what a red/green color blind person would see.



## **NOT THIS**

The lower portion of the following image provides an example of what a red/green color blind person would see.



## Structure

## Documents are logically structured using styles.

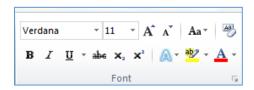
### **Do This**

Structure the document using the Styles pane in Word.

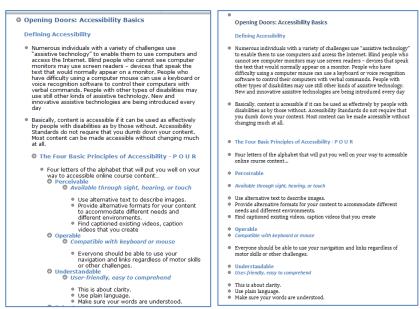


### **NOT THIS**

Changing font sizes, formatting text by applying bold or italic, changing colors by using the Font pane changes the visual hierarchy of the page, but it does not create structure that is available to assistive technology.



Both documents below are visually similar. The document on the left (created using the Styles pane) has a well-established hierarchy, making the content easy to access even by those who cannot visually discern the structure.



# **Fonts**

Text is easy to read. Sans Serif fonts are suggested for documents accessed online—12 pt. font size minimum.

# Consistency

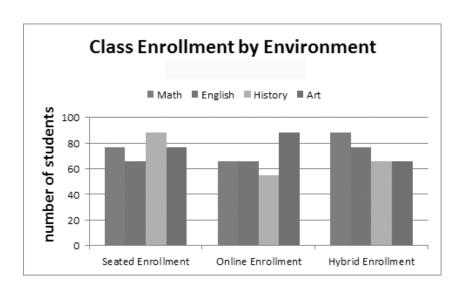
No more than 3 different text fonts or colors may be used.

Please refer to 6A on page 4 for examples.

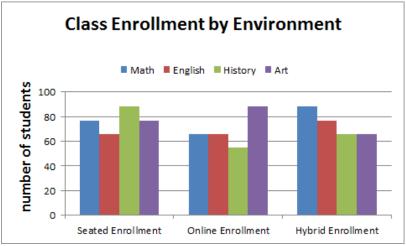
# Color

Do not use color as the only means of representation. Also provide the information in an alternate format.

A good rule-of-**thumb** is to consider how a chart that uses color to convey information might look in grey-scale.



If color is used to convey information, be sure to provide an alternate means of conveying the same information.



# Class Enrollment by Environment

	Math	English	History	Art
Online Enrollment	66	66	55	88
Hybrid Enrollment	88	77	66	66
Seated Enrollment	77	66	88	77

# Alternative Text (Alt Text)

Images (non-text elements) have meaningful alternative text and/or appropriate long descriptions.

# **Tables**

Tables are simple, used for data only, have logical left-to-right top-to-bottom reading order, table headers are implemented. Headers should repeat when a table falls in a page break.

## **Do This**

This simple table has descriptive column headers and was created considering top-to-bottom left-to-right reading order.

STUDENT	COURSE	TUTOR	DAY	TIME
Sally	Math	Mrs. Jones	Monday	12 pm -1 pm
Walter	English	Mr. Jones	Monday	12 pm -1 pm
Tommy	Math	Mr. Smith	Tuesday	1 pm -2 pm
Helen	Reading	Ms. French	Tuesday	2 pm -3 pm

## **NOT THIS**

This table has embedded table elements that would be read out of logical order by assistive technology. This table was not created considering top-to-bottom left-to-right reading order.

Student	Jane Jones		Jenny Jeffr	ies	Jamie Joh	nson
High school	PS 265 Chica	120	St Rose Mi	ami	Chapel Hi	II HS
Sport	Tennis		Soccer		Field Hoc	key
College	Duke		NCSU		Carolina	
Awards	2007	2008	2007	2008	2007	2008
	2009	2010	2009	2010	2009	2010

# **Hyperlinks**

All hyperlinks are well formed.

Please refer to hyperlinks in the Course Design section for basic information.

# **Presentations**

# **File Names**

Appropriate file-naming conventions are implemented.

Please refer to the Course Design section for basic information.

Screen Reader Access

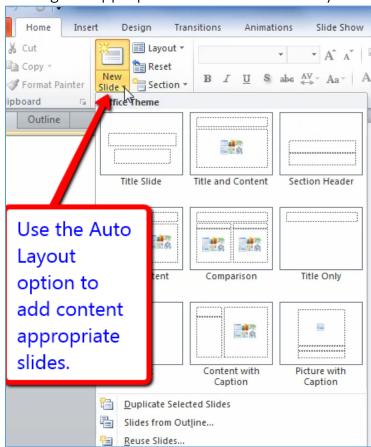
Presentations are not "Read Only." Similar to 2B on page 11.

# **Auto Layout**

Slides are created using Auto Layout.

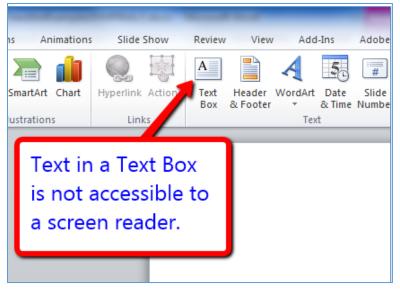
### **Do This**

Use the Auto Layout feature to add appropriate slides. Consider the type of content you plan to enter when selecting an Auto Layout slide. Add content by clicking the appropriate icon in the Auto Layout slide.



### **NOT THIS**

Insert text in the Auto Layout text areas, DO NOT add text using aText Box. Slide content in a Text Box is not available to assistive technology.



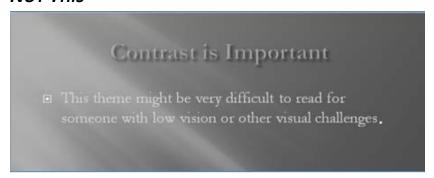
## Contrast

Slides provide adequate color contrast.

### **Do This**



## **NOT THIS**

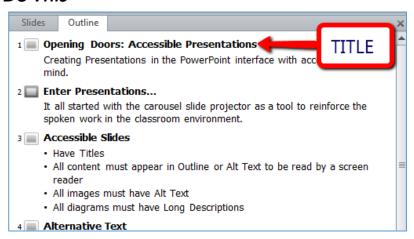


## **Outline View**

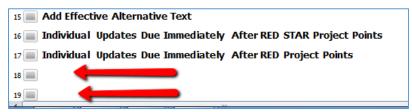
# In Outline View, each slide has a title, all text content is visible and in logical reading order.

With the exception of alternative text and long descriptions, content not visible in Outline View is not available to assistive technology.

### **Do This**



## **NOT THIS**

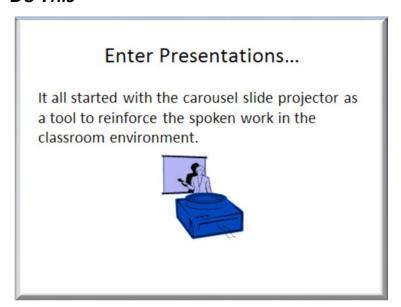


Two slides have content that does not appear in Outline view.

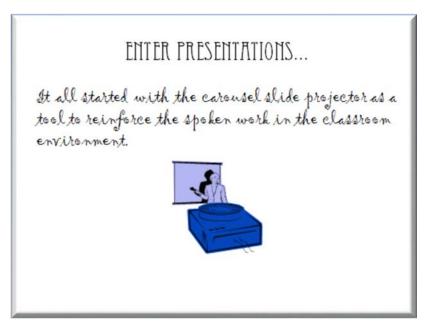
# **Fonts**

# Select fonts that are clear and easy to read..

## **Do This**



## **NOT THIS**



# Consistency

No more than 3 text fonts or colors are used.

## **Do This**



## **NOT THIS**



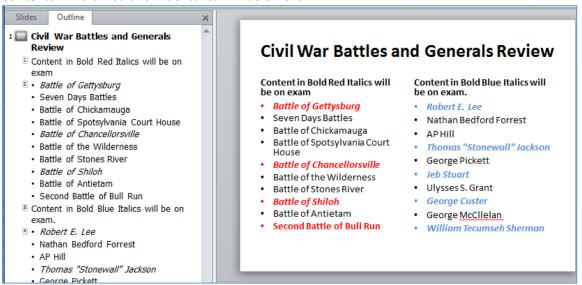
## Color

Color alone is not used to convey information.

Please refer to the Course Design section for basic information..

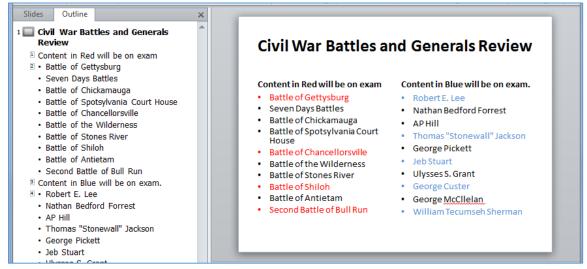
#### **Do This**

Contents in Bold Red and Blue Italics will be on exam.



### **NOT THIS**

Contents in Red and Blue will be on exam.



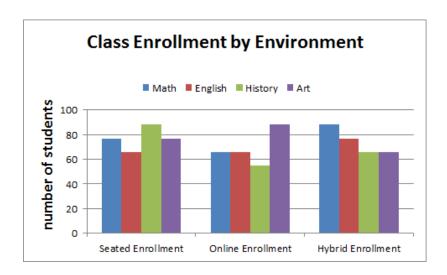
## **Alternative Text**

Non-text elements have meaningful alternative text and/or appropriate long descriptions.

Please refer to the Course Design section for basic information..

## **Do This**

Charts that have not been created within PowerPoint are simply displayed as images in PowerPoint. Alt text should be applied to the images to make them accessible. If color is used in the chart to convey information, be sure to provide an alternative means of conveying the same information without relying on color as in the example below that includes a link to the same information in Excel format. Excel spreadsheets can be very accessible if created with accessibility in mind.

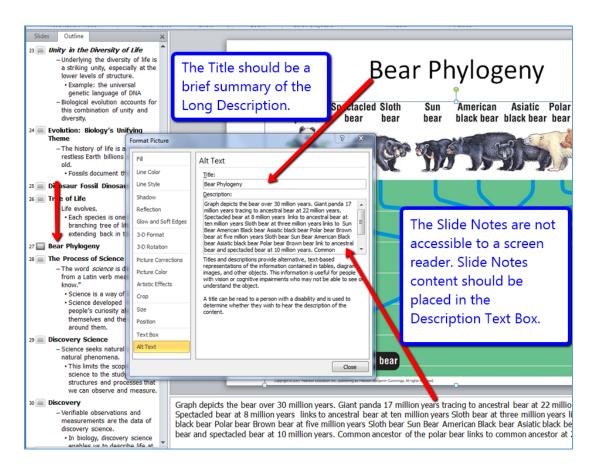


Excel Course Environment Excel File Opens in a New Window

It is also critical to provide an explanation of the available data and its relevance using a detailed description adjacent to the graph on the page or in the description alt text box.

## **Not This**

Slide note content cannot be read by assistive technology. Slide note content should also be placed on the slide itself or in the Alt Text/Description text boxes.



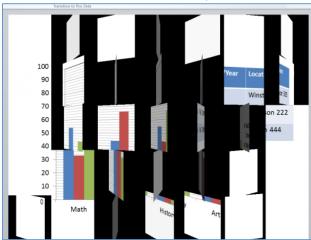
# **Transitions and Animations**

# Avoid slide transitions and animations, or provide an alternate version without transitions and animations.

Rarely do animations or transitions actually add to the teaching value of a presentation, and both often conflict with screen reader access. Avoid animations and transitions, or provide an additional version of the presentation that does not include transitions or animations.

## Don't Do This

Checkerboard transition in process.



## **OR THIS**

Wave animation in process.

# Long Description

- When alternative text  $^{i^{S}}$  not  $^{e}\eta$ ough
- Diagrams always need long descriptions
- · Charts always need long descriptions
- Tables generally need long descriptions

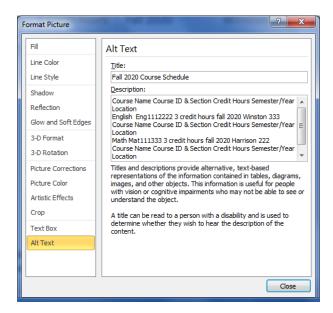
# **Tables**

Tables are simple, used for data only, have logical left-to-right top-to-bottom reading order; table headers are implemented when available.

It is important to confirm that the data in a table is available to screen readers. In PowerPoint, tables often require the same concise description as a complex image, graph, or chart. Summarize in the alt text box, and convey the data table and its purpose in the description text box. Accessible tables created in the PowerPoint environment should have titles, a logical structure with labeled headers for

columns and/or rows as in the example that follows. When a table is properly formatted, people with visual disabilities can scan content more quickly using screen readers.

Course Name	Course ID & Section	Credit Hours	Semester/Year	Location
English	ENG111-1111	3 credit hours	Fall 2020	Winston 333
Math	MAT111-2222	4 credit hours	Fall 2020	Harrison 222
History	HIS222-3333	3 credit hours	Fall 2020	Welch 444



How do we know if a table is a non-text object or text-based?

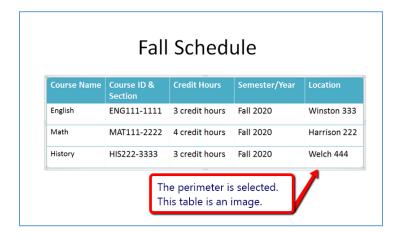
### **Do This**

The best way to discern if a table is text-based (potentially accessible) or an object (a non-text element) is to attempt to select some of the text.

The table below is text-based. The rows and cells of text are easily selected.

STUDENT	COURSE	TUTOR	DAY	TIME
Sally	Math	Mrs. Jones	Monday	12 pm -1 pm
Walter	English	Mr. Jones	Monday	12 pm -1 pm
Tommy	Math	Mr. Smith	Tuesday	1 pm -2 pm
Helen	Reading	Ms. French	Tuesday	2 pm -3 pm

The table below is an image. The perimeter is selected, but the rows, columns, and cells of data cannot be selected individually.



# Multimedia

# **Audio**

All audio files should have an adjacent transcript and appropriate user controls.

Don't enable AutoPlay or allow the multimedia to loop (play over and over).

## **Do This**

Enable user controls, and add a link to the transcript.



Image above provides a visual example of user controls that are enabled.

pepperburg podcast transcript

### **NOT THIS**

Click here for podcast

# Multimedia Videos

# All videos are synchronously captioned and a transcript is provided.

All video and multimedia content that contain speech or other necessary audio information should be open or closed captioned. Captions are a synchronous text-based representation of multimedia audio content. Open captioning cannot be turned on and off. Closed captioning, which is the preferred method, can be turned on and off.



An image of a captioned video appears above.

## transcript

# **Audio Descriptions**

## Video narratives are created incorporating visual descriptions.

When adding multimedia content, use a script to provide an audio narrative of what the learner is being shown. EXAMPLE: When providing information about a geographic location on a map, describe it visually.



## **Do This**

Italy's boundaries are shaped like a boot with the city of Rome at the knee and with the toe of the boot pointed towards the island of Sicily. Italy is surrounded by water on three sides.

### **NOT THIS**

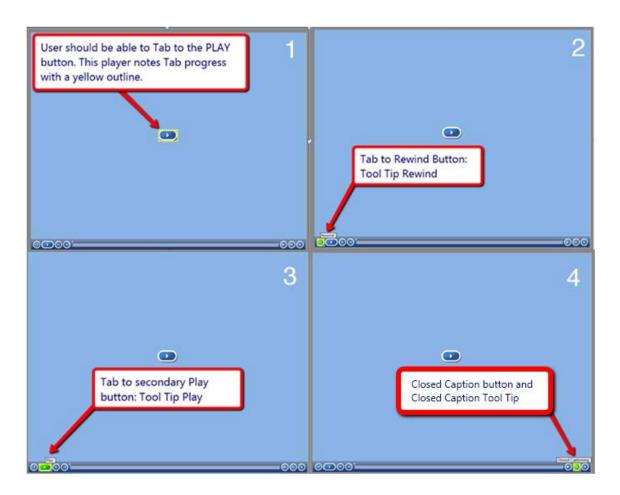
Rome is here, Sicily is here...

Detailed audio descriptions enhance learning for all students, including the visually challenged.

# **Keyboard Access and Player Controls**

Multimedia elements can be controlled by the user. Controls can be manipulated with the keyboard (Tab Key test).

To perform the Tab Key test, press the tab key repeatedly to navigate through all multimedia elements and controls.



### TAB KEY TEST

- 1. The main PLAY button has focus.
- 2. Tab again to focus on Rewind.
- 3. Tab again to focus on the secondary Play button.
- 4. Tab-tab-tab to focus on Closed Captioning.

Instructions should always be provided within the course for downloading and installing plug-ins (including links to the specific plug-ins), enabling captions, navigating players, or for accessing accessible alternatives specific to the multimedia types used within the course.

The YouTube site is accessible; but often a player embedded in a lesson is not. Alternative options with captions should be provided for all embedded media. Windows Media player may require the user to enable the caption feature. The new QuickTime player is the only plug-in player at this time that enables captions by default. Please see examples that follow.

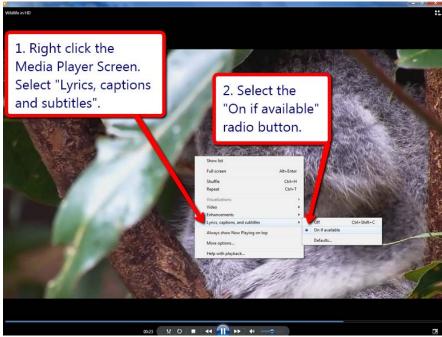
## YOUTUBE PLAYER

Captions are enabled in the YouTube player.



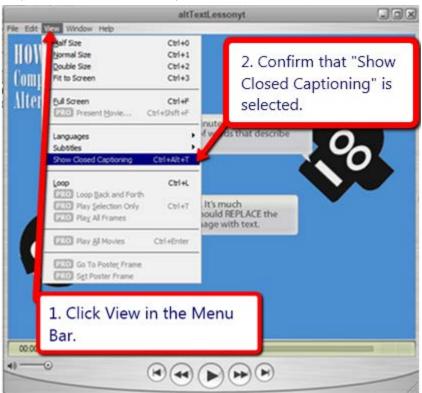
## WINDOWS MEDIA PLAYER

Captions must be enabled in the user's Windows Media player.



## **QUICKTIME PLAYER**

Captions are enabled by default



# Web Resources

# **Hyperlinks**

Hyperlink text clearly states the purpose of the link. Web addresses are also provided in text-only format.

Please refer to the Course Design section for basic information.

**Do This** 

Firefox version 3.6 download page opens in a new window.

### **NOT THIS**

» READ MORE

# Multimedia

Multimedia components and controls are accessible with keyboard (Tab Key test).

Please refer to the Course Design section for basic information.

# **Accessibility Compliance**

External resources meet accessibility guidelines, including the availability of captions and transcripts.

# **Navigation**

External resources open in a new window.

Firefox version 3.6 download page opens in a new window.

# **Resources**

The following sites provide additional online course accessibility resources.

Access eLearning - Access E-Learning is a tutorial of the Georgia Tech Research on Accessible Distance Education (GRADE) project at Georgia Tech.

http://www.accesselearning.net/

NCDAE – The National Center on Disability and Access to Education offers online resources on creating accessibility instructional materials.

http://www.ncdae.org/resources/

San Francisco State University Online Course Checklist http://www.sfsu.edu/access/instruction/documents/Course\_Accessibility\_Checklist\_Universal.pdf

UDL-Universe: A Comprehensive Universal Design for Learning Faculty Development Guide http://enact.sonoma.edu/content.php?pid=218878&sid=2032869

WebAIM – provides accessibility resources and compliance guidance http://webaim.org/



Thank you to Wake Tech Community College for sharing their Online Course Accessibility Checklist and Examples.