

Creating Accessible Documents

When you create documents – regardless of the program you are using – it is important to ensure that people with disabilities can read them. All content and documents (HTML, PDF, Word, etc.) posted to UB websites must meet minimum accessibility standards, which allow screen readers or other assistive devices to properly read the files.

Although it is sometimes possible to fix a PDF after you create it, it is far better – and usually easier – to address accessibility in the source document as you create it.

The following best practices will help you increase the accessibility of your documents.

- [Use headings](#)
- [Use lists](#)
- [Add alternative text to images](#)
- [Use tables appropriately and effectively](#)
- [Write descriptive link text](#)
- [Set document language](#)
- [Set document properties](#)
- [Understand how to export to PDF while preserving accessibility](#)

Headings

Proper headings convey content hierarchy and form an outline of the page content. Be sure to use the built-in heading tools in the program you are using. Do not simply change text size and weight. Stylistic changes (e.g., using bold or changing font size) do not provide adequate document structure needed for assistive technology. Be sure to include at minimum one heading level 1 in your document.

Six levels of headings convey higher and lower levels of content hierarchy:

- Heading 1: Usually a page title or a main content heading. It is the most important heading, and there is generally just one.
- Heading 2: Usually a major section heading.
- Heading 3: Usually a sub-section of the heading 2.
- Heading 4: Usually a sub-section of the heading 3, and so on, ending with heading 6.

Example heading structure:

```
Heading 1
  Heading 2
    Heading 2
      Heading 3
        Heading 3
  Heading 2
    Heading 3
      Heading 4
```



Microsoft Word

1. Select the text you want to use as a heading.
2. On the Home ribbon, select the heading style you want to use. If you hover over the style, you can see what it looks like.
3. To see additional styles, click the down arrow to expand the options available.
4. To modify an existing style, expand the styles window and select Manage Styles. To add a new style, expand the styles window and select New Style. ([Additional help with managing and adding styles in Microsoft Word.](#))

Lists

Lists add important semantic and hierarchical structure to your documents. There are two types of lists: ordered and unordered.

Use **ordered lists** to present a group of items that follow a numerical or alphabetical sequence. For example:

1. Complete orientation data form.
2. Submit immunization records.
3. Register for classes.
4. Attend orientation.

Use **unordered lists** to present a group of bulleted items that do not follow a sequence. For example:

- Time management.
- Test taking.
- Study skills.
- Academic planning.

Use the bullet or numbering tools in your program to create lists. Simply indenting a list does not provide the necessary document structure, making it more difficult for screen reader users to understand.

Alternative text for images

Alternative text (alt text) is a non-visual representation of the content or function of an image. **All images must have alt text.**

According to [WebAIM](#), alternative text serves several functions:

- It is read by screen readers in place of images, allowing the content and function of the image to be accessible to those with visual or certain cognitive disabilities.
- It is displayed in place of the image in browsers if the image file is not loaded or when the user has chosen not to view images.
- It provides a semantic meaning and description to images that can be read by search engines or be used to later determine the content of the image from page context alone.

Writing alternative text can be a bit of an art, but it is not impossible. Follow these tips when writing your alt text:

- Provide meaningful information about what is in the image and accurately describe the purpose of the image to the user.
- If the image is also a link, summarize the function of the link in the alt text.
- Include any text that is in the image in the alt text.
- Avoid using words like “photo of” or “image of” in your alt text.
- Ask yourself what you would want to know about the image if you could not see it.

Decorative images (e.g., bullets, icons, background images, etc.) do not require descriptive alt text but do require a null alt text, written as “”.



Microsoft Word

1. Add your image to the document.
2. Right click the image.
3. Select Format Picture.
4. Click the icon for Layout & Properties and select Alt Text
5. Add your full alt text in the Description field (or for a decorative image only, type “”).

Microsoft PowerPoint

1. Add your image to the document.
2. Right click the image.
3. Select Format Picture.
4. Click the icon for Size & Properties and select Alt Text.

5. Add your full alt text in the Description field (or for a decorative image only, type "").

Note: Unless you have a complex chart, you will usually want to enter text in just the Description box. When you have complex content to describe, then filling in the Title field is useful so reading the full description is not necessary unless desired.

[Additional help with adding alt text in other versions of Microsoft products.](#)

Tables

Tables organize information and display relationships between data. Avoid using tables solely for layout, and strive to make your tables as simple as possible. If you have a complex set of data to display, consider creating more than one table.

Use the built-in table tools in your program to create tables.



Microsoft Word

1. Click Insert > Table and move your cursor over the grid to select the number of columns and rows you want.
2. Identify the row that contains the column headers:
 - a. Select the row (Table Tools > Select > Row).
 - b. Right click the row and select Table Properties.
 - c. Click the Row tab.
 - d. Check the checkbox that says "Repeat as header row at top of each page".

Links

When you include links to websites in your documents, write link text so it makes sense to users. Link text should be descriptive enough that it can stand on its own. Avoid the use of phrases like “click here,” “learn more,” “here,” “more,” “link to,” etc. Also, avoid using the URL of a webpage as the link text.



Instead of: “[Use this link](#) to view our academic programs.”

write: “Explore our [academic programs](#).”

Instead of: “[Click here](#) for a list of academic advisors”

write: “Find your advisor in the [academic advisor directory](#).”

Instead of: “Visit our website at <https://www.buffalo.edu/cpmc/about/experiential-learning-award/experiential-learning-award-application.html> to apply for the scholarship.”

write: “[Apply for the Experiential Learning Award](#).”

Document language

Every document must specify a language so assistive technology knows in what language to read it.

Document properties

Document properties, also known as metadata, are details about the file that describe or identify it. Every PDF requires a minimum set of document properties. Similar to other elements of accessible documents, it is most efficient to set your document properties in the source document prior to converting to a PDF.



Microsoft Word

1. Click File tab.
2. On the Info screen, you will see Properties in the right column.
3. Click on "Show All Properties" at the end of the right column.
4. Complete the following information:
 - Title: This is the title of the document.
 - Tags: Include keywords about the subject of the document.
 - Subject: Include a brief description of the document, being careful not to repeat the title.
 - Company: This should always be University at Buffalo.
 - Author: This should **not** be an individual person's name. Instead, this filed should say University at Buffalo and include your department name. *For example, "University at Buffalo Office of the Registrar."*

Microsoft Publisher

1. Click File tab.
2. On the Info screen, you will see Publication Properties in the right column.
3. Click the down arrow next to Publication Properties and select Advanced Properties.
4. Click on the Summary tab and complete the following information:
 - Title: This is the title of the document.
 - Subject: Include a brief description of the document, being careful not to repeat the title.

- Author: This should not be an individual person's name. Instead, this field should say University at Buffalo and include your department name. *For example, "University at Buffalo Office of the Registrar".*
- Company: This should always be University at Buffalo.
- Keywords: Include keywords about the subject of the document.

PowerPoint

We never recommend posting a PowerPoint file on a website. In the event you absolutely need to post a slideshow, you should convert it to a PDF prior to posting.

Converting to PDF

When you create a PDF from your source document, you must ensure that you preserve accessibility and ensure that your PDF is tagged. Tags in PDFs provide a hidden structured, textual representation of the content ([WebAIM](#)).

Many PDFs start as Microsoft Word documents. Microsoft Office provides tools to create accessible PDFs, *provided that your original document is accessible*.

1. Go to File > Check for Issues > Check for Accessibility.
(In newer versions of Word, look for this under the Review tab.)
2. Results of the check will display on the right side of your document.
3. Be sure to fix all errors.

Please note: Never print to PDF. Doing so does not preserve the document's accessibility features.



Microsoft Word 2013 and 2010

1. Go to File > Save As Adobe PDF.
2. Select Options in the save screen and check the following:
 - a. Convert document information.
 - b. Enable Accessibility and Reflow with tagged Adobe PDF.
3. Name your file and save it.

Verify PDF Accessibility

After you create your PDF, take time to evaluate the accessibility of your PDF using Adobe Acrobat DC. You can use Adobe Reader minimally to verify that the document properties have been saved to the PDF, but the best way to evaluate and enhance the accessibility of your PDF is by using Adobe Acrobat DC.

1. Choose Tools > Accessibility.
2. In the secondary toolbar, click Full Check.
3. In Report Options, select options for how you want to view the report. You can save the results as an HTML file or attach the results to the document.
4. Select one or more of the Checking Options. We suggest selecting all of the options under each category (Document; Page content; Forms, Tables and Lists; and Alternate Text and Headings).
5. Click Start Checking.
6. The resulting report will display the status of each of the accessibility rules checked.
 - A green checkmark means your document passed that rule.
 - You must manually review and correct or pass rules with blue question marks.
 - Red Xs are errors. You must fix each of these in order to have a fully accessible PDF.

