ASCCC OERI Style Guide

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Section One: Resources for all OERI Funded Projects

All the content in Section One applies to **all** OERI funded projects. Please read through this section carefully. If you have questions, you can reach out to your Project Facilitator. Section One address the following:

- Teamwork and Collaboration
- Understanding OER and Choosing Your License
- Finding and Tracking Compatible Sources to Use for Your OER
- Creating OER for Everyone: Universal Design, Accessibility, Diversity, and Inclusion
- Ensuring Consistency and Uniform Style

Before We Begin: A Quick Note about Teamwork and Collaboration

As your project requires collaboration, it will be helpful before you begin to ensure there are clearly defined roles. If this has not yet been done, consider:

- Convening your team, in person or virtually, to launch the project. Brainstorm topics and concepts to define the scope and give everyone a voice in the overall product. Having everyone on board early will prevent rework and confusion as the project progresses.
- During the drafting process, working together to plan and identify potential resources. Doing so assures that everyone is working to the same end.
- Dividing the work by defining roles.[1]

Understanding OER and Choosing Your License

As an OER author, you need a solid understanding of copyright, public domain, and open licensing. Then you will be able to choose the appropriate license for your work and understand what sources of content that you can include in your work.

Understanding Copyright

Before you begin writing, make sure you have a firm grasp of what copyright means and how to apply an open license.

According to the Merriam-Webster dictionary, copyright is

> the exclusive, legal right to reproduce, publish, sell, or distribute the matter and form of something (such as a literary, musical, or artistic work)[2]

The laws that govern copyright vary from country to country. The term "copyright" (copy + right) was first recorded between 1725 and 1735. You can explore more about copyright through the United States Copyright Office's *Copyright Basics* circular.

What Can and Cannot Be Copyrighted

There are several things that can't be copyrighted. In the U.S., they include the following:
- Titles, names, slogans, and short phrases. (However, some of these might be protected with a trademark.)
- Facts, ideas, concepts, systems, and methods of operation. (Yet, copyright might protect how these items are expressed such as in a writing or illustration.)[3]

What is Public Domain?

Works within the public domain are not restricted by copyright, so they are owned by the public.[4] Anyone can use a public domain work without obtaining permission, but no one can ever own it.

There are four common ways that works arrive in the public domain:
- the copyright has expired
- the copyright owner failed to follow copyright renewal rules
- the copyright owner deliberately places it in the public domain, known as "dedication," or
- copyright law does not protect this type of work, this includes:
  - short phrases
  - fact and theories
  - U.S. Government Works[5]

What is OER?

Open Educational Resources (OER) are teaching and learning materials that reside in the public domain or that have been released under a license that permits no-cost use, adaptation, and redistribution. For many, OER are identified solely as textbooks or full courses that are openly licensed. However, OER, by definition, also include single or stand-

alone resources such as videos, images, test banks, primary source texts, interactive exercises, and other materials for use in teaching, learning, and research.

OER are typically licensed under open licenses, the most popular being Creative Commons (CC) licenses. Open licenses support creators who want to share their work freely and allow other users more flexibility to adapt and share their original work. Benefits include:
- Allowing others to distribute the work freely, which in turn promotes wider circulation than if an individual or group retained the exclusive right to distribute;
- Reducing or eliminating the need for others to ask for permission to use or share the work, which can be time consuming, especially if the work has many authors;
- Encouraging others to improve the work; and
- Encouraging others to create new works based on the original work—e.g. translations, adaptations, or works with a different scope or focus.

What's Not OER?

Below are three categories of resources that fall outside the definition of the intention of OER, because their licenses and use permissions do not allow for adaptations to resources.
- **Subscription-Based Library Collections** - A library's subscription-based resources (journals, videos, and other materials), while accessible to students and educators, are not OER. This is because their use in education may be limited by license agreements. Examples include Elsevier's health science curriculum, and Alexander Street's multimedia resources.
- **Purchased Digital Course Materials That Do Not Carry an Open License** - Materials purchased by your institution from commercial publishers that are free to use by your educators and learners, but that are not openly licensed.
- **Free Online Resources that Do Not Carry an Open License** - All the available resources on the web that you may have access to at no cost, but that are not in the public domain, or do not carry a Creative Commons license or other open license, are not OER.[6]

Creative Commons Licensing

Creative Commons (CC) licenses allow you to explain, in plain language, how your creative works can be reused. These licenses act as explicit, standing permissions for all users.

Table 1: Conditions of Creative Commons Licenses[7]

Icon	Right	Description
	Attribution (BY)	Licensees may copy, distribute, display and perform the work and make derivative works and remixes based on it only if they give the author or licensor the credits (attribution) in the manner specified by these. Since version 2.0, all Creative Commons licenses require attribution to the creator and include the BY element.

Icon	Right	Description
	Share-alike (SA)	Licensees may distribute derivative works only under a license identical ("not more restrictive") to the license that governs the original work. (See also copyleft.) Without share-alike, derivative works might be sublicensed with compatible but more restrictive license clauses, e.g. CC BY to CC BY-NC.)
	Non-commercial (NC)	Licensees may copy, distribute, display, and perform the work and make derivative works and remixes based on it only for non-commercial purposes.
	No Derivative Works (ND)	Licensees may copy, distribute, display and perform only verbatim copies of the work, not derivative works and remixes based on it. Since version 4.0, derivative works are allowed but must not be shared.

These elements can be mixed and matched to create a total of six Creative Commons licenses.[8]

Table 2: Seven Regularly Used Creative Commons Licenses[9]

Icon	Description	Shortening	Attribution Required	Allows Remixing	Allows commercial use
	Freeing content globally without restrictions	CCO	No	Yes	Yes
	Attribution alone	BY	Yes	Yes	Yes
	Attribution + Share Alike	BY-SA	Yes	Yes	Yes
	Attribution + Noncommercial	BY-NC	Yes	Yes	No
	Attribution + Noncommercial + Share Alike	BY-NC-SA	Yes	Yes	No
	Attribution + No Derivatives	BY-ND	Yes	No	Yes
	Attribution + Noncommercial + No Derivatives	BY-NC-ND	Yes	No	No

Choosing Your Open License

Projects funded by the Academic Senate for California Community Colleges' Open Educational Resources Initiative (ASCCC OERI), require authors to choose the CC BY or CC BY-NC license. While the appeal of the CC BY-NC option is understandable, it does place a limit on the use of that content as it can't be mixed with content that is licensed CC BY-SA or that is required to be licensed as CC BY. In addition, strict interpretations of the "NC" element can lead to challenges with respect to covering the necessary costs of printing. While the "NC" does not prohibit recouping the costs of printing or of making a resource available on a bookstore shelf, it does prevent the application of standard mark-ups intended to both recoup costs and profit. You can read more about [advocating for CC BY by David Wiley](#).

CC BY

Strengths
- The CC BY license is the most popular and open license provided by Creative Commons.
- By requiring attribution and nothing else, your CC BY work will be easy for others to adapt and build upon.
- CC BY is often the default choice for open publications. YouTube uses the CC BY 3.0 license as their single "Creative Commons" option.

Weaknesses
- Because CC BY allows for easier sharing and adaptation, it also leaves the creator with less power over their work. When you use a CC BY license, you cannot be certain that derivatives created using your work will remain open or that your work will be reused for projects you support.

CC BY-NC

Strengths
- The CC BY-NC license gives the creator of a work complete control over any commercial reuse of their work.
- As a user, you can adapt and remix CC BY-NC works so long as your new works provide attribution to the original author and do not turn a profit.

Weaknesses
- Some users may be concerned about what they are allowed to do with your CC BY-NC work and where the commercial "line" is drawn.[10]
- This license does not remix with licenses that do not have an NC license.

Attribution Basics

It is important to note that using OER in academia is still in its infancy, and so far official, standardized guidelines have not been established to handle attributions for remixed content.[11] There is no one right way; just make sure your attribution is reasonable and suited to the medium you're working with.[12] This guide will provide some suggestions and guidelines for different types of OER that you may be working on for your ASCCC OERI funded project.

A good rule of thumb is to use the acronym TASL, which stands for **T**itle, **A**uthor, **S**ource, **L**icense.

Title - What is the name of the material?
- If a title was provided for the material, include it. Sometimes a title is not provided; in that case, don't worry about it.

Author - Who owns the material?
- Name the author or authors of the material in question. Sometimes, the licensor may want you to give credit to some other entity, like a company or pseudonym. In rare cases, the licensor may not want to be attributed at all. In all of these cases, just do what they request.

Source - Where can I find it?
- Provide the source of the material so others can find it. Since we live in the age of the Internet, this is usually a URL or hyperlink where the material resides.

License - How can I use it?
- You are obviously using the material for free thanks to the CC license, so make note of it. Don't just say the material is Creative Commons because that says nothing about how the material can actually be used. Remember that there are six different CC licenses; which one is the material under? Name and provide a link to it, eg. http://creativecommons.org/licenses/by/4.0/ for CC BY.
- If the licensor included a license notice with more information, include that as well.

Lastly, is there anything else I should know before I use it?
- When you originally accessed the material did it come with any copyright notices; a notice that refers to the disclaimer of warranties; or a notice of previous modifications? Because that kind of legal language may be pretty important to potential users of the material, it is a best practice to retain such information by copying and pasting such notices into your attribution. Don't make it more complicated than it is -- just pass on any information you think is important.
- Regarding modifications: Don't forget to note if you modified the work yourself (example -). A good attribution for material you modified slightly will specify the original title (if one exists), author, source, and license followed by the nature of the modification.
- Regarding derivative works: A good attribution for a derivative work will state that the new work is a derivative of the old (specified by the original title, author, source, and license) and state the new author of the derivative work and the licensing.

These best practices are based on actual Creative Commons (CC) licensing requirements. Note that the inclusion of a title is a requirement of all CC licenses version 3.0 or earlier and optional for 4.0. Including the author, source, license, and retaining any extra notices is a requirement of all CC licenses.

If you have any doubts or questions, you can read the complete attribution requirements which are spelled out in detail in the lengthy legal code of every CC license (e.g., Creative Commons Attribution 4.0 International Public License).[13]

The easiest way to create an attribution is with the very handy Open Attribution Builder created by the great folks at Open Washington. The Open Attribution Builder prompts the user to input the relevant resource information, select a license, and specify if the work is a derivative. Upon providing this information an attribution is produced that can be copied and pasted on the resource.

Figure 1: A screen capture of the Open Attribution Builder[14]

For more detail on writing attributions, consult the Attributions tab of the Mt. Hood Community College Textbook Affordability Libguide or Creative Commons Best practices for attribution.[15]

How you attribute your source depends on what format your OER is and what license you are choosing for your OER. Please also remember that licensing compatibility is important and creating an OER that has a consistent global license (with only compatible sources of content) is ideal and recommended. OER that consists of a mixture of incompatible licenses and necessitates page-by-page or section-level licensing information creates a burden on the developer and the end-user, as well as a complicating factor when the resource iis to be printed. Let's look at the sources of content that would likely be included in a funded proposal.

Finding and Tracking Compatible Sources to Use for Your OER

It is important to ensure that each and every source you use in your OER is being used legally. This means no sources should infringe on copyright and all should have compatible creative commons licensing. It is important to carefully track what sources you use and where they are used to provide proper attribution. In other words, develop a system for tracking resources before you begin collecting them.

Avoiding Copyright Infringement

It is the responsibility of the author/s to ensure that all material in the OER— whether it be newly created or modified, such as images, data, or multimedia — does not infringe or induce the infringement of any third-party copyrights.[16]

This means if you find something that does not have an explicit creative commons (or similar) license or that you are sure is in the public domain, you should assume it is copyrighted. Remember freely available does NOT mean able to be legally used freely. Authors can seek permission to use copyrighted content. For ASCCC OERI funded projects please consult your project facilitator to ensure you get proper documentation.

For more information, read [How to Avoid Copyright Infringement](#).[17]

What about Fair Use?

If there is not sufficient openly licensed source content and copyrighted references need to be used, fair use allows for paraphrasing and limited quotations with full references. This should be used as little as possible and only where and when necessary to create a well-referenced and correctly attributed resource. Using commercially published textbooks as a source of content is not appropriate for OER projects funded by the ASCCC OERI. Common practices within the classroom or a password-protected course management system that may be justified via fair use are generally not appropriate within the context of an OER.

A Bit More About Fair Use

Fair Use is part of copyright law (Section 107) that determines the extent to which you may use or distribute a copyrighted work without requesting specific permission.
Fair use generally permits parts of a work to be used in the following examples:
- Criticism or commentary
- Parodies
- Educational use to illustrate a lesson

Do not assume that citing a source or using it for educational purposes puts it under fair use. Copyright law is flexible, but four factors are weighed to determine whether copying material applies to fair use.

1. Purpose of the Use
Fair use is more likely to apply if the reason for its use is:

- Noncommercial or nonprofit
- Educational (teaching, scholarship, or research)
- Commentary, criticism, parody, or news reporting
- Preservation (e.g. storing a digital copy)
- Transformative works (e.g. creating something new, with a different purpose from the original)

2. Nature of Original Work Used
Fair use is more likely to apply if the work being used is:
- Purely factual, nonfiction, or educational
- Published
- Not a consumable product (e.g. standardized tests, workbooks)

3. Amount of Original Work Used
Fair use is more likely to apply if you use:
- a smaller portion of the work (e.g. no more than 1 chapter, 1 article, or 10% of the work, as a rule of thumb)
- a part of the work that does not define the work as creatively unique (e.g. not the "heart" of the work)

4. Effect on the Market of the Original Work
Fair use is more likely to apply if you:
- can prove you have not deprived the owner of any income
- copy a portion of out-of-print text or other work that no longer makes money from sold copies[18]

Creative Commons Licensing Compatibility
The best source of content for your OER is that which is already openly licensed. Table 3 below describes which sources of content can be used based on the license you have chosen for your OER.
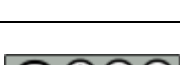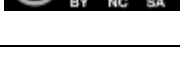
CC BY licensed OER can use sources that are:
- in the public domain
- licensed CC BY

CC BY-NC OER can use sources that are:
- in the public domain
- licensed CC BY
- licensed CC BY-NC

Table 3: Compatibility of Creative Commons Licenses[19]

	If the final product is						
Can I use it?	PUBLIC DOMAIN	CC BY	CC BY SA	CC BY NC	CC BY NC SA	CC BY ND	CC BY NC ND
PUBLIC DOMAIN	Y	Y	Y	Y	Y	Y	Y
CC BY	N	Y	Y	Y	Y	Y	Y
CC BY SA	N	N	Y	N	N	N	Y
CC BY NC	N	N	N	Y	Y	N	N
CC BY NC SA	N	N	N	N	Y	N	N
CC BY ND	N	N	N	N	N	N	N
CC BY NC ND	N	N	N	N	N	N	N

Using Incompatible Licenses

It is not uncommon to encounter challenges finding sufficient content that has compatible licensing when creating OER. In this case, adding an "Except Where Otherwise Noted" clause to the license and clearly identifying content that is under a license that is not incompatible to your chosen license may be appropriate. As noted prior, having incompatible licenses does create challenges for those who may choose to remix your OER based on the license you choose.

Where to Find Use Permissions

Sometimes it can be challenging to find the permissions of resources you find online. Here is a quick checklist to help:

- Look carefully at the resource you want to use and any information surrounding the resource to identify licensing information.
- Also, review the "About" and "terms of use" pages of the resource's website for permissions and licensing information.
- If you cannot find a symbol or statement of the license or the permissions for use, the copyright owner is probably retaining all of the exclusive rights.

The resource is in the public domain or is openly licensed for reuse if one of these is true.
- There is a statement indicating that the work is in the public domain
- The resource is a U.S. federal government work prepared by an officer or employee as part of that person's official duties, and is thus free to use without restrictions
- There is a symbol or statement that indicates it is licensed under one of the six Creative Commons (CC) licenses
- If there is no Creative Commons or other open license listed, there is a clear statement (for example, on the terms of use page) that the resource may be used and adapted[20]

Using Images in OER

OER can be enriched with relevant, high quality images. Please ensure that any images you use in your work are in the public domain or a compatible license (see above) or a CC0 (public domain) license and that you provide a complete and accurate attribution for every image. The following are useful sources of public domain and CC-BY licensed multimedia content:
- The Internet Archive
- Creative Commons
- The Met Museum
- Flickr
- Open Culture
- Free Music Archive
- Pixabay
- Pexels
- Wikimedia Commons
- Unsplash

Note: All images must be given captions that connect the image with content and descriptive alternative text.[21]

Tracking Your Sources

As you seek resources, whether they are text, images, graphs, maps, or other materials, consistently document as much as possible about the resource. Not only will this assist in any future updates or modifications to your textbook, but the information will be vital as you provide proper attributions.

Building asset management into your writing process may also be beneficial. For example, if writing as a group, one individual may be tasked with seeking out a list of items to be included and obtaining all material information.

Information to document should include:
- Given resource name
- Type of material (ex. video, image, website)

- Link to resource
- Description of resource
- License type (must allow for remixing)
- Author/owner
- Title to be used within OER
- Caption, if appropriate
- Location in work (ex. Chapter 2, Section 2.5)

Using a spreadsheet to manage assets allows for quick and easy review of such issues.[22] You can make a copy of the spreadsheet created by Quill West shown in the screen capture below that you can use to do this.

Figure 2: Quill West's Tracking Spreadsheet

Creating OER for Everyone: Universal Design, Accessibility, Diversity, and Inclusion

Any educational resource, including OER, should be developed to meet every student's needs as much as possible. To do this, authors and creators should remember to begin with universal design, ensure that their OER is accessible for all users, and include diverse and inclusive examples, language, and experiences so that students will see themselves respectfully represented and included in your content. Let's look more closely at each of these things.

Universal Design for Learning

Education should help turn novice learners into expert learners—who want to learn, know how to learn strategically, and in their own highly individual ways, are well prepared for a lifetime of learning. Universal Design for Learning (UDL) helps educators meet this goal using a framework for how to create curricula that meets the needs of all learners from the start. The framework was developed by the [Center for Special Applied Technology (CAST)](.).[23]

Table 4: Universal Design Framework[24]

Guideline	Principle	Explanation	Goal
Affective Learning	Provide multiple means of engagement	Provide flexible options for generating and sustaining motivation – adding the WHY of learning	Purposeful and motivated learner
Recognition Learning	Provide multiple means of representation	Provide flexible ways to present WHAT we teach and learn	Resource and knowledgeable learner
Strategic Learning	Provide multiple means of action and expression	Provide flexible options to express HOW we learn and express what we know	Strategic and goal directed learner

When you are creating your OER, consider how to incorporate universal design into your work.

Accessibility

Universal Design for Learning (UDL) and accessibility both seek to ensure that learners can access and participate in meaningful, challenging learning opportunities; however, accessibility typically focuses on learners who have needs related to physical and/or cognitive disabilities.

The term "accessible" is defined by the Office of Civil Rights (OCR), U.S. Office of Education as when a person with a disability is afforded the opportunity to acquire the same information, engage in the same interactions, and enjoy the same services as a person without a disability in an equally effective and equally integrated manner, with substantially equivalent ease of use ([Office for Civil Rights Compliance Review No.11-11-6002).](#)

The POUR Framework

The [POUR framework](#) was developed by the [National Center on Accessible Educational Materials](#) as a set of checkpoints for ensuring that digital materials are accessible for learners. The four components include:

- **Perception**: Can all students at least perceive the content?
- **Operable:** Are all students able to navigate and interact with the content?
- **Understandable:** Are all students able to understand the content?
- **Robust:** Does the content work well with other technologies?[25]

Basic Accessibility Considerations

Accessibility will be addressed as applicable to each type of OER you may be creating for your ASCCC OERI funded project in later sections in this guide. But below you find some general considerations for ensuring accessibility across OER. When these are built in from the beginning it will make a big difference in ensuring the resource is accessible to all students who will use it.

Organization of Content/Headings

Many students need clear cues to navigate content, so keeping the organization and hierarchy consistent is important. Use heading styles from the style menu rather than bold, italic, or different font sizes to indicate the start of a new section. This helps to structure the content in a logical way for all students, including those using screen readers.

Lists

Make sure you use the standardized numbered and bulleted lists found on the style menu, rather than plain text. Use a numbered list when the order of the list is important (e.g. steps or stages of a process or stages). Use bullet points for all other lists.

Images and Color

Include a text description for any functional images that communicate important information. This will likely be more in depth than an image caption and should contain enough information that a student can understand the concept depicted without seeing the image. (Note: this isn't required for decorative images!). You should also avoid using color as the only means of communicating information (e.g., on a graph).

Tables

Make sure you avoid inserting images of tables and instead enter the content as an editable table. Tables need to have a proper header row. This ensures that it will be accessible for students using screen readers.

Multimedia
If you're including video content, it must have accurate captioning (auto-captioning is not sufficient). If you include audio content, it should have an accurate transcript provided.[26]

Diversity, Social Justice, and Anti-Racism

California's community colleges, as the largest college system in the nation, represent 2.1 million students—the majority of whom are part-time students from diverse ethnic backgrounds.

The OER movement has long sought to foster more equitable access to education, for example, by allowing faculty to provide free textbooks on the first day of class. However, the movement has only recently begun to consider ways to bring together OER with frameworks for diversity, equity, and inclusion, so that materials and learning experiences demonstrate that diverse perspectives are valued.

Lambert (2018), in Changing our (Dis)Course: A Distinctive Social Justice Aligned Definition of Open Education, argues that to meet the needs of today's students through OER, we must design explicitly for social justice. Drawing on principles of social justice from John Rawls, Nancy Fraser, Amanda Keddie, and Iris Marian Young, Lambert demonstrates how OER can support access to education, pay respect to cultural and gender differences, and open up possibilities for giving voice to traditionally marginalized voices, as outlined below.[27]

Table 5: Social Justice in OER[28]

Principles and Social Justice	OER Enablers
Redistributive Justice - Allocation of material or human resources towards those who by circumstance have less	Free educational resources, textbooks, or courses to learners who by circumstance of socio-cultural position cannot afford them, particularly learners who could be excluded from education or be more likely to fail due to lack of access to learning materials.
Recognitive Justice - Recognition and respect for cultural and gender difference	Inclusion of images and knowledge of women, First Nations people, and whomever is marginalized in any particular national, regional, or learning context. Recognition of diverse experiences as legitimate within assignments and feedback.
Representational Justice - Equitable representation and political voice	Self-determination of marginalized people to speak for themselves, and not have their stories told by others. Co-construction of OER texts about learners of color by learners of color, about women's experiences by women, about gay experiences by gay identifying people.

Original table was adapted with permission from Lambert, S. R. (2018). Changing our (Dis)Course: A Distinctive Social Justice Aligned Definition of Open Education. *Journal of Learning for Development*, *5*(3), 225-244.

As you decide who will be on your creation and review team, please consider the voices that you amplify and the experiences you share, and by whom. And, as you decide what you are going to include in your OER, please give thoughtful consideration to how it is going to be addressed and how it will speak to students.

Developmental Guidelines

The following [development guidelines were adapted from those drafted by OpenStax](#) and provide guidance on ways to address diversity, equity, and inclusivity in OER by properly representing genders, races, cultures, geographies, ethnic backgrounds, disabilities, nationalities, ages, sexual orientations, socio-economic status, and diverse viewpoints. All efforts should be made to avoid any offense and to ensure that every student can see themselves in the resource.

Illustrations and Graphics
- Include diverse subjects and people.
- Consider background (literally) context, depicted actions of the subjects, expressions of authority, connotations, and so on.

Example Names
- Include diverse names representing various national origins, genders, etc.
- Avoid stereotypes associated with certain names of names that present in a certain way

Key Figures in the Field
- Seek diversity in key/historical figures mentioned
- Avoid isolating diverse contributors to specific sections – i.e. "multicultural impacts on psychology."
- Where key/historical figures are not diverse, include current, more diverse researchers/figures for balance.

Application, Examples, and Exercises/Problems
- Write and use examples that include diverse people, organizations, geographies, and situations.
- Create real-world practice problems and applications that pertain to situations and contexts inclusive of all populations.
- Avoid negative stereotypes or sensitive subjects in problems and applications, unless the subject matter demands it.
  - For example, a section on mental health may require assessments on suicide rates or prevention, but a math textbook can likely do without that subject matter.
- Be certain that no exercises/problems require a specific knowledge or context that may be absent from certain individuals, or that may produce a negative connotation.
- Make no assumptions about prior knowledge, especially from different subjects/cultural contexts.

- o For example, in a US History course, do not assume that everyone has read The Red Badge of Courage or has seen Saving Private Ryan.

Appropriate Terminology

- Ensure that all references to people, groups, populations, categories, conditions, and disabilities use the appropriate verbiage and do not contain any derogatory, colloquial, inappropriate, or otherwise incorrect language.
- In most cases, usage of outmoded terminology in historical situations (e.g. court cases, laws, articles) should be clearly defined in quotations or annotated with contextual information.
  - o For example, the use of "illegal alien" in a discussion of a law can be framed as "as stated in the decision," or something similar.
- Recognize that appropriate terminology is changing all the time, and do your best to use current verbiage. Consult style guides as necessary; note they may be in conflict. Do not feel obligated to use the very latest term if it is not widely used or is controversial. Some example style guides:
  - o [General Style Guide](#)
  - o [APA Guidance on Sexual Orientation](#)
  - o [GLAAD Media Reference Guide](#)
  - o [Teaching Tolerance Terms/Definitions](#)
  - o [National Association of Black Journalists Style Guide](#)
  - o [Religion Stylebook](#)
  - o [Mental Health](#)
  - o [Disability Style Guide](#)
  - o [Gender references/pronouns](#)
- Avoid idioms or colloquialisms, particularly those that will lead to misconceptions among those who natively speak other languages or who may not have the educational or cultural context to understand them.

Keywords/Indexed Items

- Ensure that diverse topics and terms are represented in keywords/index

Balanced Issues and Discussions

- Consider and include issues and situations that pertain to diverse populations. When discussing problems, conditions, or issues, be sure to include those that affect an array of populations and groups.
- Be aware of stigmatizing victims or those having a specific condition, occupation, experience, or background.
- Be aware that certain controversial topics, when necessary to include, should be described in a balanced manner.
  - o If a discipline has accepted a specific position on a topic (e.g. climate change, sexual orientation being partially determined biologically, etc.), describe that position.
  - o If a socio-political issue without a consensus must be described (e.g. campus carry, voting rights), then do your best to include a balanced viewpoint.

- o Avoid characterizations that lead to generalization – e.g. "rural communities tend to support gun rights." If a generalization like that must be stated, provide more context, such as why, and include any counterpoints from "within" that generalization.

References
- While finding diversity in referenced academic journal articles and other published research may be difficult to the point of impracticality, please do what's possible to consider it. This may be easier in some disciplines or journals than others.
  - o For example, Sociological Science includes diversity information in its author biographies - but we acknowledge that not all journals and fields do so.
- Perhaps more importantly, if you are including less formal, in-text mentions of specific researchers or studies (as is very common in Psychology textbooks, for example), these should be as diverse as possible.
- We recognize that diversity in academic journals and departments is far behind where it should be, which impacts the opportunities you have to represent all populations in a course resource. Again, please work to identify specific opportunities in your discipline, and partner with your editors and teams to potentially engage with academic organizations focused on DEI in your field.[29]

BCcampus has also provided guidance on diversity, equity, and inclusion in their efforts to be the leading example of how to create an inclusive environment. Their best practices include being fluid in your communications and strive to use the currently acceptable and appropriate definitions, terminologies, and spellings. Please be aware that language and identities change, so it's good practice to confirm you are using the most inclusive definition wherever possible.[30]

A Final Note About Inclusive Language
The words we use can make the difference between forging positive connections or creating distance in our personal and professional lives. Particularly in writing, impact is more important than intent.[31]

The Conscious Language Style Guide provides extensive resources for exploring the language that writers use to describe people accurately and respectfully.

A Note About Inclusive Images
It's hard to visually represent every possible person that might use your OER project, but work to showcase a variety of people in the images you use. Some sources of openly licensed diverse images include:
- Images of Empowerment: Free images of women's lives and work, created by the William and Flora Hewlett Foundation, the David and Lucile Packard Foundation, and Getty Images; License: CC-BY-NC-4.0
- Allgo Plus-Size: Free stock photography collections featuring plus-size people; License: While attribution is not required, please credit

- [Disabled And Here](): Free stock photography featuring disabled BIPOC (Black, Indigenous, people of color), varied body sizes/types, sexual orientations, and gender identities in the Pacific Northwest; License [CC BY 4.0]()
- [The Gender Spectrum Collection:]() Free stock photos of trans and non-binary people; License: [CC BY-NC-ND 4.0]()
- [Nappy:]() Free high-resolution photos of black and brown people; License: [Creative Commons Zero (CC0)]()
- [PICNOI:]() Free photos of people of color; no attribution required, but can give credit by linking to the site
- [#WOCinTech Chat:]() Free photos of women and non-binary people of color working in the Tech field; License [CC BY 4.0]()
- [Redefining Women Icon Collection:]() Icons of women; License: [Creative Commons Public Domain CC0 1.0]()
- [Open Peeps, Hand-Drawn Illustration Library 11]() vector style graphics; License [Creative Commons Zero (CC0)]()
- [American Education: Images of Teachers and Students in Action](): Repository of original print-quality photos of real Pre-K–12 students and teachers; License [CC-BY-NC]().
- [Dollar Street]() families and homes across the world: License [CC BY 4.0][32]

Ensuring Consistency and Uniform Style in Your OER

Before creating or revising an OER, it is important to establish a road map that will guide the style of the work. This is even more important when there are multiple contributors, who would likely naturally create and present material in different styles.

Style Guide

That's where a style guide comes in handy. Style guides usually include citation style as well, i.e. how cited or referenced material should be treated both in the text (in-text) and within the reference list. Commonly used style guides include,

- *APA Style*. APA (American Psychological Association) style is typically used to cite and style works in the social sciences and education.
- *The Chicago Manual of Style Online*. Chicago style is most often used to cite and style works in the humanities.
- *MLA Style Manual*. MLA (Modern Language Association of America) style is most frequently used to cite and style works in the literary and humanities fields.

Style Sheet

In addition to the style guide, you should create a style sheet that outlines the specific characteristics of your resource. This style sheet should be provided to and followed by all contributors/creators to create the most consistent resource possible. Possible items to address with the style sheet include:

- Tone
- Tense (past or present)
- Citation style
- Heading styles
- Use of boldface and italics
- Punctuation
- Spacing
- Dashes (em dash and en dashes)
- Captions and other labeling
- Measurements
- Numbers (when/how to use numerals and when to spell out)
- Reference list formatting
- Spelling and abbreviations[33]

It is suggested that you create a template (chapter, slideshow, etc.) for your OER project as well. This should be provided to all authors as a reference and/or starting place for creation.

Section: Resources by Project Type

The content in this section is specific to the type of project you are working on. Please use this section to gain insight into information specific to your project type.

You will find sections for the following types of projects:
- Textbooks
- Slideshows/Slide Decks
- Videos
- Lab Manuals
- Test Banks
- Instructor Manuals
- Creative Works
- Homework Systems and Interactive Exercises

If you have questions that are not addressed by this guide, please reach out to your Project Facilitator.

Creating an OER Textbook

When we think of a textbook, we often think one of two things: the books we used during our own education or the books we use for teaching our courses.

With an open textbook, we can create our ideal textbook, to look beyond the tradition of what a textbook has meant to us, and instead imagine what we wish it would be. An open textbook allows for a highly-customized body of content and a student-centered delivery.

That said, a textbook is a familiar learning device. Students have a strong expectation of what a textbook should be. Just like with other instructional materials, the student experience should be carefully considered.

When looking to write a textbook, some general rules of design will be helpful.
- Begin with the end in mind. What is it that you are trying to achieve? What is the scope of the book? What knowledge should a student have before and after they have used the book? What are the learning objectives?
- Sketch out the general parameters of your book. What types of media do you want to incorporate into your book?
- Make a plan for the future. Who will review your book? How often do you anticipate the content will need to be updated?[34]

Consistency and Uniform Style

Make sure that all authors have a style guide and a template that will ensure that the chapters are consistent and uniform in style, accessibility, and attributions.

What Goes into a textbook? How is it Structured?

Let's examine two things:
- Book Structure: How the book is organized on a high level.
- Book Elements: Internal components of a book that may be replicated within the overall structure.

Structure

Fleshing out the basic structure of your book allows you to address the matter of consistency. Creating consistent, repeatable, expected content for student readers provides a better learning experience. It also allows you to consistently frame how the materials will be taught.

While defining your content structure outline, it may be helpful to keep in mind what prerequisite knowledge the students will have prior to using your book, what your anticipated time constraints are and where your students will go next. You may find that your structure is modified after you begin to include elements.

This list of things that can make up the structure of a textbook is meant to assist in the process of creating your ideal structure. It is in no way exhaustive and many categories of content may be known by different terminology.

- Cover Page
- Legal Page
- Table of Contents
- Foreword
- Unit
- Chapter
- Section
- Sub Section
- Bibliography
- Resources
- Appendices
- Index
- Teachers Edition Materials

Elements

After you have created a general outline for your book structure, look to the common elements within that structure. Elements, just as structural components, should be consistent throughout your book.

It is at this point when you might start to look for matches among existing content. For example, do you have a case study that can be used for each unit or chapter you are creating? If you only have one case study you intend to use, can it become a chapter in itself? Does it belong in the appendices? As you build your elements, you may find that your overarching structure is modified as well.

This list of what might be included in the elements of your textbook is meant to assist in the process of creating your elements. It is in no way exhaustive and many categories of content may be repeated with different terminology.

- Headings
- Titles
- Objectives
- Overview
- Introduction
- Body
- Graphs
- Images
- Tables
- Maps
- Sidebar
- Key Terms

- Vocabulary Terms
- Practice Questions
- Example Sets
- Answer Keys
- Key Takeaways
- Summary
- Conclusion
- Case Studies
- Quiz[35]

Further Considerations

Textbooks are often built in an online platform (software system or website) where content can easily be changed (intentionally and not) and many features can be added. Some argue that an online textbook should take full advantage of media beyond the text in a book. This alone can be stressful as one grapples with how to proceed in this sea of endless choices.

The ASCCC OERI supports the use of platforms that facilitate customization, printing, and integration into a course management system. For these reasons, the ASCCC OERI recommends the use of LibreTexts, a platform that not only has these features, but that will "harvest" the openly licensed content you wish to use, making content that is not currently available in an editable form available for modification within the LibreTexts platform.

Openly licensed textbook authors are faced with millions of photos, illustrations, and other open educational resources from which to select and add to the textbook. As each source of content is chosen you must decide what to change or add, a situation that is both exhilarating and exhausting. Trouble making decisions in an environment that presents too many options is not uncommon; in fact, it is a well-recognized cognitive process referred to as overchoice or choice overload.[36]

Ensuring Quality

Questions about the quality of open educational resources have been cited as one of the top three concerns among faculty who are considering adopting OER, including open textbooks, to use in the classroom. Therefore, as an author of a textbook, it is vital to factor in the quality of your work during the planning stages.

The quality of an open textbook is determined by many different things. When designing a textbook, authors should consider the quality of the following aspects:

1. **Information**. Is it current, complete, relevant, and well-cited?
2. **Design**. Is it well-structured and consistent? Does it include pertinent learning objects and align with learning objectives for the intended curriculum or curricula?
3. **Accessibility**. Is the content in the book accessible to the greatest number of students?
4. **Copy**. Is the writing clear and concise? Is the text grammatically correct with no spelling errors? Is the writing style, spellings, layout (use of headings, bold, italics, etc.) used appropriately and consistently? Are all figures, tables, graphs, and other

learning objects clearly identified, numbered, and labeled for easy reference? Is a style guide being used? Has a style sheet been created for the book?[37]

Five Rules of Textbook Development
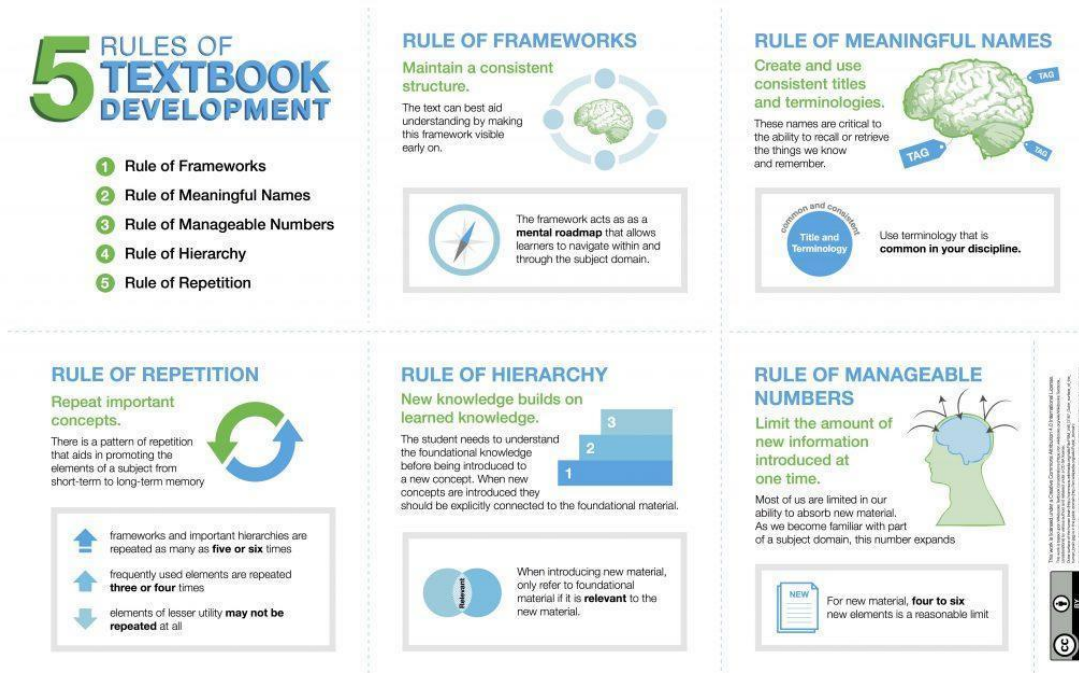
Figure 3: Rules of Textbook Development[38]

The following five rules will help with the development of a good textbook.

1. Rule of Frameworks

Maintain a consistent structure that will help students create a mental roadmap to guide them through the content you have provided in your textbook.

2. Rule of Meaningful Names

Create and use consistent titles and terminologies. This is vital to learners' abilities to recall what you want them to remember. Make sure you use the terminology and language that is used commonly across your discipline.

3. Rule of Manageable Numbers

Limit the amount of new information introduced at one time. The more familiar content becomes the larger amount of material learners will be able to absorb. A reasonable limit for new information is 4 to 6 elements.

4. Rule of Hierarchy

As new knowledge builds on already learned knowledge, learners need to understand foundational knowledge before being introduced to new concepts. Whenever relevant, tie new concepts explicitly to foundational knowledge when introduced. The more previously

mastered content that can be connected to new concepts, the easier it is for learners to remember.

5. Rule of Repetition

Repeat important concepts to help learners move them from short-term to long-term memory. Things that are foundational to their learning may be repeated as many as 5 to 6 times. And frequently used elements may be repeated three or four times. Exercises and review sections are elements that can be used for repetition.[39]

Determining the Content

Before you begin writing, create an outline that details the topics to be covered in your textbook and how they will be organized in a table of contents. Consider the type of students who will use your textbook and the course level and program for which the textbook is intended. Taking time to consider the audience and classroom will direct the tone and complexity of your writing. An outline is most useful when it includes all the details needed to build and arrange your book.

Front Matter

The front matter is the introductory section of your textbook and the first thing readers see. Think about what you might want readers to see before they get to the content. This might include, foreword (by a non-author expert), preface (the why and how of the book's creation and explanation of authors' expertise), acknowledgments, and introduction (to the content of the book, e.g. theme, layout, and special features). This should include the license you have chosen for the book and the [ASCCC OERI Information Page](#).

Body

As you shape the content of your textbook's main body, ask these questions:

- How will the main body be divided? Indicate if parts or units will be used.
- Will each chapter include chapter sections? (If chapter sections are included in the table of contents, it is easier for students and other instructors who might use your textbook to see at a glance the textbook's content and navigate through the book.)
- Will numbering and/or titles be used to identify parts, units, chapters, and chapter sections? If possible, include these in the outline. (Titles and numbering can be changed in the final draft, but establishing working titles helps during the organizational phase.)
- How long should the book be? Estimate the word count for the entire book, and then break this number down into individual chapters.

Next, consider the layout, style, and length for each chapter and chapter section. Decide what elements to incorporate such as:

- Learning objectives or outcomes that align with the textbook content, typically identified at the beginning of each unit, chapter, or chapter section
- Chapter introduction

- Exercises, essay questions, practice quizzes, or other methods for the student to self-test during reading or for the instructor to use for grading
- Key terms highlighted and defined throughout the textbook; some authors summarize these in a Glossary placed in the back matter
- Chapter-end summary or list of key points or key takeaways
- Suggested/additional reading lists at the end of each chapter or in the back matter
- Resources (photos, illustrations, diagrams, graphs, charts, tables) and how they will be labeled, numbered, and captioned. Will these items be original creations or retrieved from external sources?
- Multimedia (videos and audio clips) for online textbooks. Will these be embedded or will a link be provided? How will these elements be labeled, numbered, and captioned? Will transcripts be provided to ensure accessibility? Will you offer editable files?

Estimate the amount of time needed to create each item for each chapter or chapter section — and then double it. Most OER textbook authors underestimate the amount of time required to write and produce or collect resources and multimedia.

Back matter
Items at the end, or as part of the back matter, of a textbook are typically supplements to the main text. If used, these might include appendices, glossary, references, resources, index, about the authors, and versioning history.[40]

Research
The writing portion of a textbook begins with research. In some cases, collecting and organizing the research can take longer than the actual writing. However, it's time well spent, especially if it's done well and thoroughly.

Like any scholarly work, it's important to choose appropriate sources when conducting research for a textbook and then cite or attribute them correctly.

The following steps may help as you gather research and resources.
1. Write down the knowledge you have accumulated on your textbook's topic. If you're an instructor, this information is likely part of your course package or curriculum notes or something you talk about in the classroom. However, unless this information is common knowledge or based on original research, you must cite it.
2. Look at other open textbooks on the same or similar topics to see if they contain sections/chapters that can be adapted or used in your book.
3. If possible, follow resources — be they text or images — back to the original source so you're confident that they are truly openly licensed.
4. Keep concise records of all sources you reference and cite in your textbook, including journal articles (online and off), newspapers, books, government documents, reports from a private organization, conference proceedings, dissertation, online lecture notes, email, blogs, wiki, websites, and video podcasts.

5. Note the date when accessing an online resource and its URL (Uniform Resource Locator) or web address.
6. Record all the information you will need to cite a resource properly. [Purdue University's Online Lab (OWL)](#) provides a very good research and citation resource for writers.[41]

Attributions for OER Textbooks

The basics of attribution were introduced earlier in this guide. Remember that an attribution should follow the acronym TASL, which stands for **T**itle, **A**uthor, **S**ource, **L**icense, with links to each, if available, a note about how you have modified the work or used it to make your derivative, and any additional notices that were provided that would be relevant to include. And a handy resource for creating properly formatted attributions is the [Open Attribution Builder](#) created by [Open Washington](#).

Attributions for Multiple Sources

Once you start combining OER, properly attributing multiple sources can raise questions. There are few different ways to do this. Below you will find information on and examples of using footnotes and endnotes (which is what this document uses), compiled lists of sources, and standard citation formats.

Using Footnotes (or Endnotes)

One of the simplest and clearest ways to incorporate attribution statements in remixed OER may be by citing sources with footnotes (or endnotes, if you prefer). For example, this paragraph remixes two CC-BY sources of content:

> The first step is to create proper *attribution statements* for the individual items you are going to remix. It is important to note that using OER in academia is still in its infancy, and so far official, standardized guidelines have not been established to handle attributions for remixed content.[1] There is no one right way; just make sure your attribution is reasonable and suited to the medium you're working with. That being said, you still have to include attribution requirements somehow, even if it's just a link to an About page that has that info.[2]

And here are the footnotes/endnotes that would be used to provide attributions that correspond to each portion of an adapted text.

[1] Adapted from ["Attribution Statements for Remixed OER Content"](#) by [Kevin Moore](#), [Open Oregon Education Resources](#) is licensed under [CC BY 4.0](#)

[2] Adapted from ["Best practices for attribution"](#) by [Creative Commons](#) is licensed under [CC BY 4.0](#)

Compiled Lists of Sources

If the platform selected for OER development or publishing doesn't allow for footnotes or endnotes, authors may provide a list of licenses and attributions in a section at the bottom or end of the page, section, or chapter that the content appears in. Authors who are developing a resource outside of an OER development platform will want to keep the options available in the platform their resource will eventually reside in mind during development. Two popular

development platforms, LibreTexts and Pressbooks, will be discussed to demonstrate the approaches that may be taken.

In LibreTexts (libretexts.org), footnotes and endnotes are an option and content within LibreTexts is broken up such that different sections of content can exist on discrete HTML pages. Authors can choose how to present their attributions in the manner that best meets their needs and provides the most optimal experience for viewing digitally or in print. The LibreTexts page structure also provides an internal mechanism for dividing content with incompatible licenses, allowing the author to specify different licenses on different pages (i.e., textbook sections).

In PressBooks (pressbooks.com), footnotes or endnotes are not an option. Here is an example modified from Dave Dillon's OER Textbook *Blueprint for Success in College and Career*[42]. The list below appears at the end of Chapter 7: Speaking the Language of College.

> *Licenses and Attributions:*
>
> CC licensed content, Shared previously:
>
> A Different Road To College: A Guide For Transitioning To College For Non-traditional Students.
> Authored by: Alise Lamoreaux.
> Located at: https://openoregon.pressbooks.pub/collegetransition/chapter/chapter-4/
> License: CC BY 4.0
> Adaptions: Reformatted. Added learning objectives. Modified reasons for going to college. Updated sources.
>
> Tim Ferriss: Smash Fear, Learn Anything.
> Authored by TED.com.
> Located at: https://www.ted.com/talks/tim_ferriss_smash_fear_learn_anything#t-19570
> License: CC BY-NC-ND 4.0

While attribution formats may vary, the elements that are present should be consistent and reflect the TASL elements delineated previously. If you were to input these into the Open Attribution Builder, you would get the following attributions:

> "A Different Road To College: A Guide For Transitioning To College For Non-traditional Students." by Alise Lamoreaux. is licensed under CC BY 4.0
>
> "Tim Ferriss: Smash Fear, Learn Anything." by TED.com is licensed under CC BY-NC-ND 4.0

Using Standard Citation Formats

Scholars make attribution statements through standard citation formats such as Modern Language Association (MLA 8) and American Psychological Association (APA) styles. Adapting this method to remixed OER can simplify the attribution process. By using the signal

phrases used in scholarly citation, you can indicate a fuller attribution on a separate list of attributed works (traditionally known as a bibliography or reference page.)

For example:
Socrates (ca. 469 – 399 B.C.E.) (Greek Σωκράτης Sōkrátēs) was an ancient Greek philosopher and one of the pillars of the Western tradition. Having left behind no writings of his own, he is known mainly through Plato, one of his students. Plato used the life of his teacher and the Socratic method of inquiry to advance a philosophy of idealism that would come to influence later Christian thought and the development of Western civilization. ("Socrates")

The signal phrase ("Socrates") links to the original web page of the source. On the bibliography page, where you would find the following:

 "Socrates." New World Encyclopedia, New World Encyclopedia, 8 Oct. 2015. Accessed 16 Mar. 2017. Licensed under CC BY-SA 4.0[43]

Images
Captions remain a reliable way to provide the creators or owners of an image proper credit, while also using CC license attributions. Some word-processing and web design software will enable you to create a caption that is attached to the metadata for the image, which helps users of screen readers. The caption on the image below provides an example.[44]

Figure 4: "The Death of Socrates" by Jacques Louis David is in the Public Domain[45]

Accessibility for OER Textbooks
To create an accessible page or document, you will need to do the following:
- Create descriptive hyperlinks.
- Provide meaningful alternative text for images.
- Apply heading styles correctly.
- Apply bulleted or numbered lists to groups of associated text.
- Apply table headers to tables.

LIST is an acronym to help you remember the accessibility principles you must address:

- **L** = Links
- **I** = Images
- **S** = Structure (Lists & Headings)
- **T** = Table[46]

The National Center on Accessible Educational Materials has another acronym to guide accessible documents.
- **S** – Styles are used for section headings
- **L** – Links are descriptive and meaningful
- **I** – Images have text descriptions
- **D** – Design is perceivable with high contrast
- **E** – Evaluation is holistic and authentic

You can explore this more on their [Creating Accessible Documents and Slide Decks page](#).[47]

Headings

Use heading styles built into Word or the editor tool in your platform rather than just making text bigger or bold. Screen reader users navigate around the headings similarly to how sighted people will visually skim a document by looking at the headings.
- Heading 1 is reserved for the title
- Avoid skipping heading levels (i.e., going from level 1 to level 3)

Images

Images need alt text even if they indicate it is a decoration. Alt text provides a written description of an image for people who use screen readers to read to them. If an image provides complicated information, you might need to provide an extended description in the main narrative text or provide it in a supplemental document.

Tables

It can be difficult for people who use screen readers to navigate tables. Here are a few tips:
- Do not use tables only for formatting purposes.
- Avoid using blank cells for formatting.
- Keep tables simple – avoid tables within tables or merged/split cells.
- Use table headings.
- Test the table yourself by tabbing through it to see the order.
- Use the tool in the editor to insert a table.

Links

When creating a hyperlink**,** link meaningful text rather than "click here." Example: For more information, see the [UWEC website](#). If a screen reader user is navigating for links, "click here" has no meaning while "UWEC website" explains the link.

Lists

Use the built-in bullet or number function rather than dashes or asterisks – it lets the listener know they are going in and out of a list and states how many points are in the list.

When to use bullets

If your items are a group of equivalent ideas or terms, and the order is not an essential aspect of the concept, use a bulleted list.

When to use numbers

If your items are a sequence, steps to instructions, or an essential part of a whole (such as, "there are four things you need to know to complete this assignment"), use a numbered list.

Other Considerations

Here are a few more things to consider when creating the text to ensure accessibility:

- Avoid using color or highlighting as the only methods to signify meaning. Screen readers don't provide information about text color. In addition, students with color blindness may be unable to see the contrast. Avoid the use of red, green, and orange in general.
- Use bold or italics for emphasis. Avoid underlining because screen readers interpret that as a hyperlink.
- Avoid adding white space to a document by using the space bar or tabs. Screen readers pick these up and each space or tab is read aloud to them. Instead use formatting, indenting, or styles to create white space.
- Ensure that formulas can be read by screen readers.
- Make sure any embedded multimedia is fully accessible (captions for video and transcripts for audio).[48]

Here is an accessibility checklist from Rebus that you can use to check that your textbook addresses common accessibility requirements.

Table 6: Accessibility Checklist[49]

Area of Focus	Requirements	Pass?
Organizing Content	Content is organized under headings and subheadings	
Organizing Content	Headings and subheadings are used sequentially (e.g. Heading 2. Heading 3, etc.) as well as logically (if the title is Heading 1 then there should be no other Heading 1 styles as the title is the uppermost level)	
Images	Images that convey information include Alternative Text (alt-text) descriptions of the image's content or function	

Area of Focus	Requirements	Pass?
Images	Graphs, charts, and maps also include contextual or supporting details in the text surrounding the image	
Images	Images do not rely on color to convey information	
Images	Purely decorative images contain empty alternative text descriptions. (Descriptive text is unnecessary if the image doesn't convey contextual content information)	
Tables	Tables include row and column headers	
Tables	Tables include a title or caption	
Tables	Tables do not have merged or split cells	
Tables	Tables have adequate cell padding	
Links	The link is meaningful in context, and does not use generic text such as "click here" or "read more"	
Links	Links do not open new windows or tabs	
Links	If links must open in a new window, a textual reference is included in the link information	
Embedded Multimedia	A transcript has been made available for a multimedia resource that includes audio narration or instruction*	
Embedded Multimedia	Captions of all speech content and relevant non-speech content are included in the multimedia resource that includes audio synchronized with a video presentation	

Area of Focus	Requirements	Pass?
Embedded Multimedia	Audio descriptions of contextual visuals (graphs, charts, etc.) are included in the multimedia resource	
Formulas	Formulas have been created using MathML	
Formulas	Formulas are images with alternative text descriptions, if MathML is not an option	
Font Size	Font size is 12 point or higher for body text	
Font Size	Font size is 9 or 10 point for footnotes or endnotes	

*Transcript includes:
- Speaker's name
- All speech content
- Relevant descriptions of speech
- Descriptions of relevant non-speech audio
- Headings and subheadings

Creating OER Slideshows/Slide Decks

If your project is to create PowerPoints (or slideshows/slide decks using other software), there are a few things to take note of. Let's consider each of these.

Identifying the Source of Content

Most of the time, slideshows will be created based on the content in a textbook. Any resource that is created for an ASCCC OERI funded project that is designed to accompany a text, must be based on an OER textbook. Here is an example of a slide that was included in a PowerPoint based on an OER textbook that makes it clear what textbook is it supplementing.
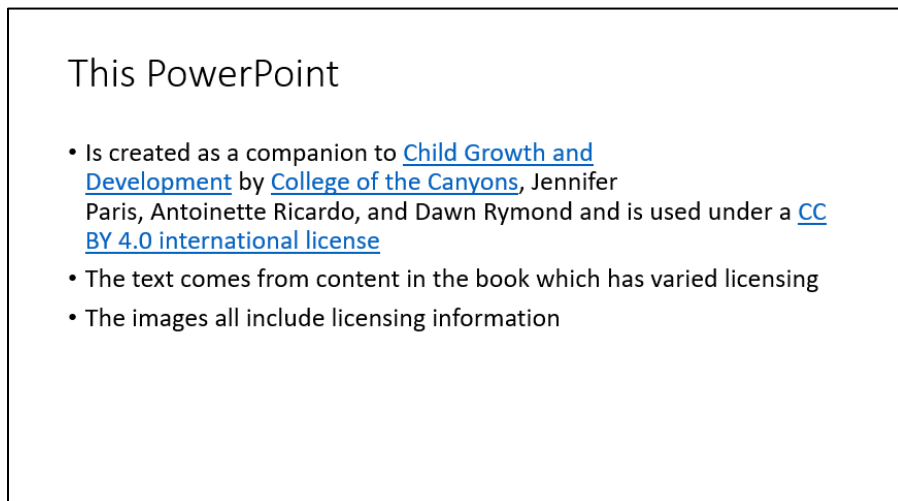
Figure 5: Source of Content Slide[50]

There may be times where the content is general (not related to a single textbook). But if a resource is aligned to a text, that text must be OER.

Consistency and Uniform Style

If more than one person is creating the slides, be sure that all creators have a style guide and a template that will ensure that the slides are consistent and uniform in style, accessibility, and attributions.

Accessibility for Slideshows/Slide Decks

As with all other materials, any slides must be fully accessible. The following are considerations to make sure your slides are accessible (these are specific to PowerPoint, but the principles would apply to any software being used).

Use Unique Slide Titles

A key theme to remember when creating accessible documents is to **use the built-in features and provided layouts rather than going rogue**. For instance, use the slide title box that is provided in PowerPoint to convey the main concept on the slide. Be sure that each slide has a unique title (not repeated on other slides).

Figure 6: Title portion of PowerPoint Slide.[51]

In some cases, the presenter may not want the title to be visible – for instance, if the slide consists of only a large, bold image. In this case, it is possible to include a title but make it invisible to a sighted viewer but readable by a screen reader and visible in Outline view. Here are brief instructions to do this:

- Click Arrange in the Home ribbon.
- Click Selection Pane
- Click the eye symbol next to the title to toggle the visibility (screenshot below)
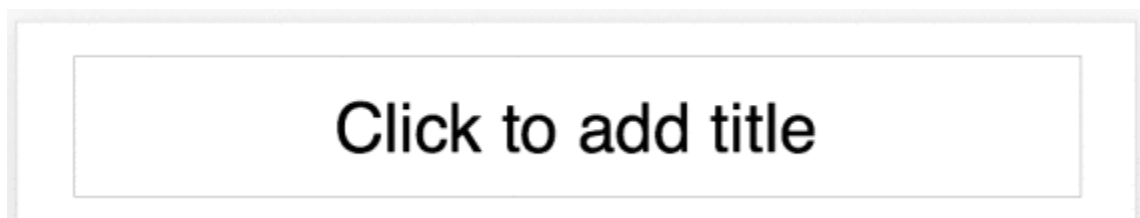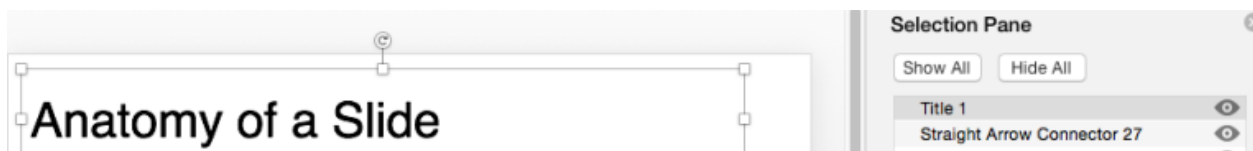

Figure 7: Screenshot of title and selection pane in PowerPoint. [52]

Design

Design your slides simply and avoid images that do not add meaning to your slide and are for decoration only, both because they distract viewers and because they take up valuable space on your slide.

Ensure that there is adequate contrast on your slides – for instance, black text on a white background. Contrast is even more important in a setting where the presentation is projected than if being viewed on a computer screen.

Avoid the colors orange, red, and green because they are difficult for people who have color deficiencies to see. Also, avoid using color as the only way to signify meaning. Some alternatives include boldfaced or italicized text.

Outline View

An easy way to check the accessibility of your PowerPoint is through the Outline view. Go to View, then select Outline View which is next to Normal.

Avoid using Text Boxes

All slide text should show up under Outline view. If you notice text is missing, it may be in a text box rather than the title box. Text boxes are found under the Insert tab. Unfortunately, screen readers cannot consistently access text in a text box and they are often not in a logical reading order.

An alternative would be to use one of the layouts that provide multiple content areas. "Two Content" will give you a title and two accessible text boxes while "Comparison" gives you four accessible text boxes. You can also add additional "placeholders" for more text or content areas in the Slide Master
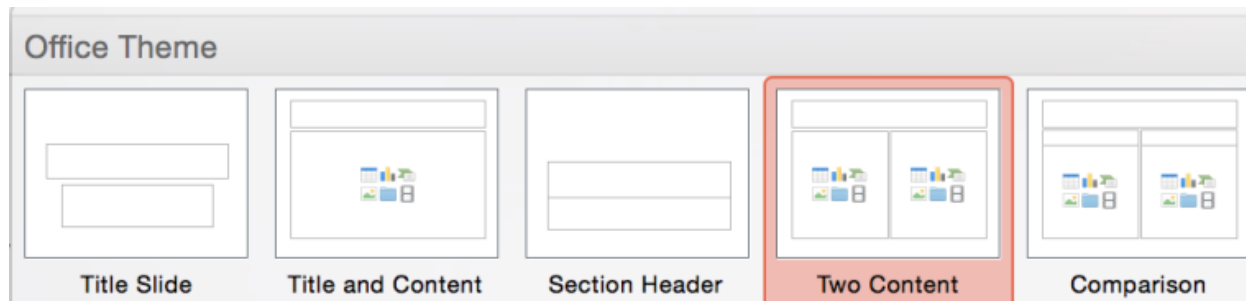
Figure 8: Screenshot of Two Content Layout.[53]

Alt Text for Images

If you're developing PowerPoints that are facilitating learning effectively, you're using a lot of images. Therefore, making a PowerPoint accessible will be a decent amount of work, because all those images need alt text. Alt text is a description of the image that a screen reader will read. WebAIM's alt text article is highly recommended.

To add alt text to an image in a PowerPoint, select the image and then right click and choose Format Picture. One tip is to include the alt text in the Description box rather than the Title box as shown in the screenshot below.
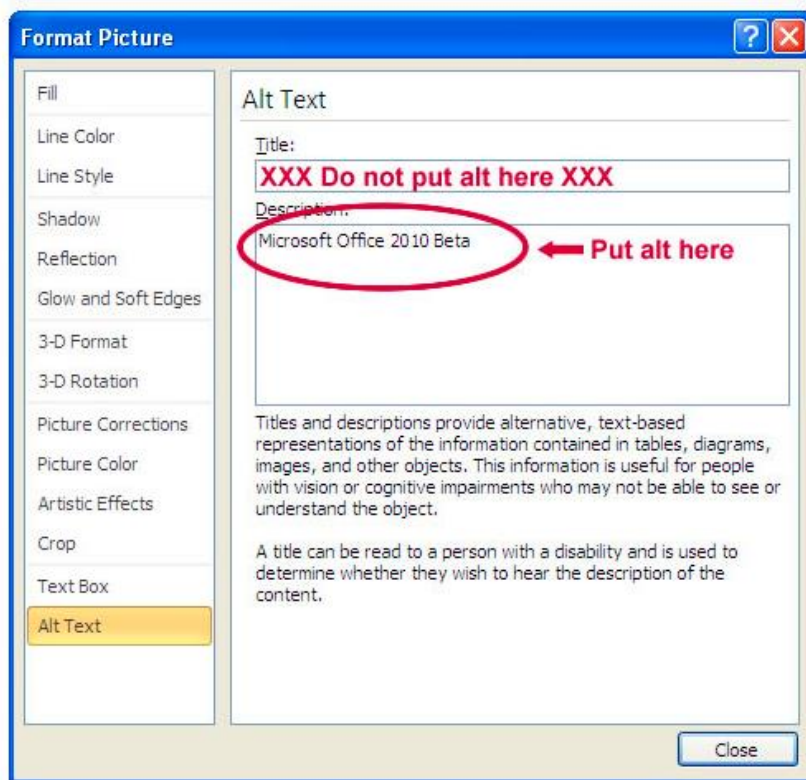
Figure 9: Screenshot of Alt Text box in PowerPoint. [54]

SmartArt

SmartArt is a function in Microsoft Office products that helps represent ideas visually. Treat SmartArt graphics like an image and make sure to add alt text as they are not screen reader friendly. Add alt text to the entire object rather than each individual element.

The Notes Area

Text in the notes area below the slide will not automatically be read by a screen reader. This is one reason it is preferable to share a PowerPoint file in a different format. The screenshot below shows the notes are in PowerPoint.[55]

Images

A picture can be worth a thousand words, but we don't always have time or space for that level of detail as an alt text description. Depending on the content in the picture, you might need to provide an extended description in the main narrative text or provide it in a supplemental document.

Sample Image 1

Here is the paragraph that accompanied the following image:
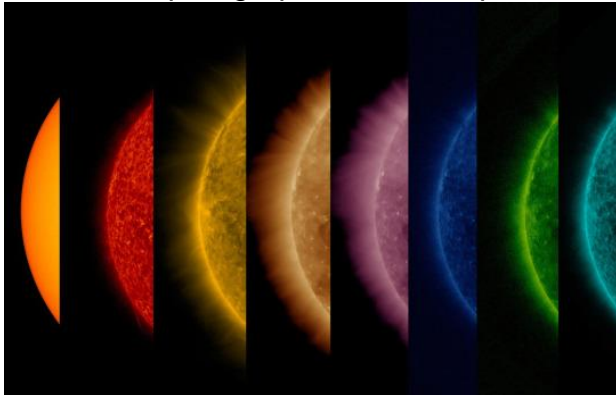
"This sequence of images from the Nasa [Solar Dynamics Observatory](#) shows the Sun from its surface to its upper atmosphere all taken at about the same time (Oct. 27, 2017). The first shows the surface of the sun in filtered white light; the other seven images were taken in different wavelengths of extreme ultraviolet light. Note that each wavelength reveals somewhat different features. They are shown in order of temperature, from the first one at about 11,000 degrees Fahrenheit (6,000 degrees Celsius) on the surface, out to about 10 million degrees in the upper atmosphere. Yes, the sun's outer atmosphere is much, much hotter than the surface. Scientists are getting closer to solving the processes that generate this phenomenon."

As the image in this example provides significant information, one effective solution is to provide a longer description in the PowerPoint slide (the text surrounding the image) and then include simple alternate text for the image itself.

For this image, the alternate description is "Filtered images of the sun representing different temperatures."

Sample Image 2

In this example, the series of images of this dog might have several different descriptions depending on the context.

This image was the dog's reaction to eating a lemon. As such, the alt text could be, "Image series showing a dog's response to eating a lemon."[56]

Slide Reading Order

Use the Accessibility Checker and the Reading Order pane to set the order in which the screen readers read the slide contents. When the screen reader reads this slide, it reads the objects in the order they are listed in the Reading Order pane.

1. In your presentation, select Review > Check Accessibility.
2. In the Warnings section of the Accessibility pane, select the Check reading order category. Any slides where the reading order of slide elements does not seem logical are listed in this section.
3. For a slide in the section, select the drop-down menu arrow next to it and select Verify object order to open the Reading Order pane.
4. All the elements on the slide are listed in the Reading Order pane. You can drag and drop elements up and down to change the reading order. To move multiple elements, press and hold the Ctrl key and select clicking the elements, and then move them together.[57]

Links

Make sure any links are meaningful in context and do not use generic text such as "click here" or "read more." Once you've inserted the link, you can test it (in Normal view) by right-clicking the hyperlink and selecting Open Hyperlink.[58]

Lists

As mentioned previously in this guide, it is important to use the list feature in your software.

When to use bullets:

If your items are a group of equivalent ideas or terms, and the order is not an essential aspect of the concept, use a bulleted list. Consider, for instance, the list of things every instructor can easily do to make sure content pages are accessible to everyone:

- Chunk material into usable bits.
- Use white space to prevent cognitive overload.
- Use styles to tag headings for users with screen readers.
- Use bulleted and numbered lists to synthesize information.
- Integrate meaningful hyperlinks into your text.
- Ensure color contrast is optimized for the visually impaired.

When to use numbers:

If your items are a sequence, steps to instructions, or an essential part of a whole (such as, "there are four things you need to know to complete this assignment"), use a numbered list. For instance, consider these sequenced instructions for creating a list:

1. Select the numbered list icon from the editing bar.
2. Enter the first step in your sequence, then select Return.
3. Enter the next step in your sequence, then select Return.
4. Continue entering steps until the instructions are completed.
5. De-select the numbered list icon in the editing bar--your cursor will snap back to the left margin, ending your numbered list.[59]

Tables

PowerPoint has a feature to include table headers. You can also add alt text to a table or chart. However, complex charts and graphs are inherently inaccessible, because there is limited navigation between data points. Important tables can be created outside of PowerPoint in Canvas or Excel to provide fully accessible navigation.

Accessible tables in PowerPoint include

- Table Header
- Alt Text: In the **Alt Text Description** field, provide a summary of the table data.[60]
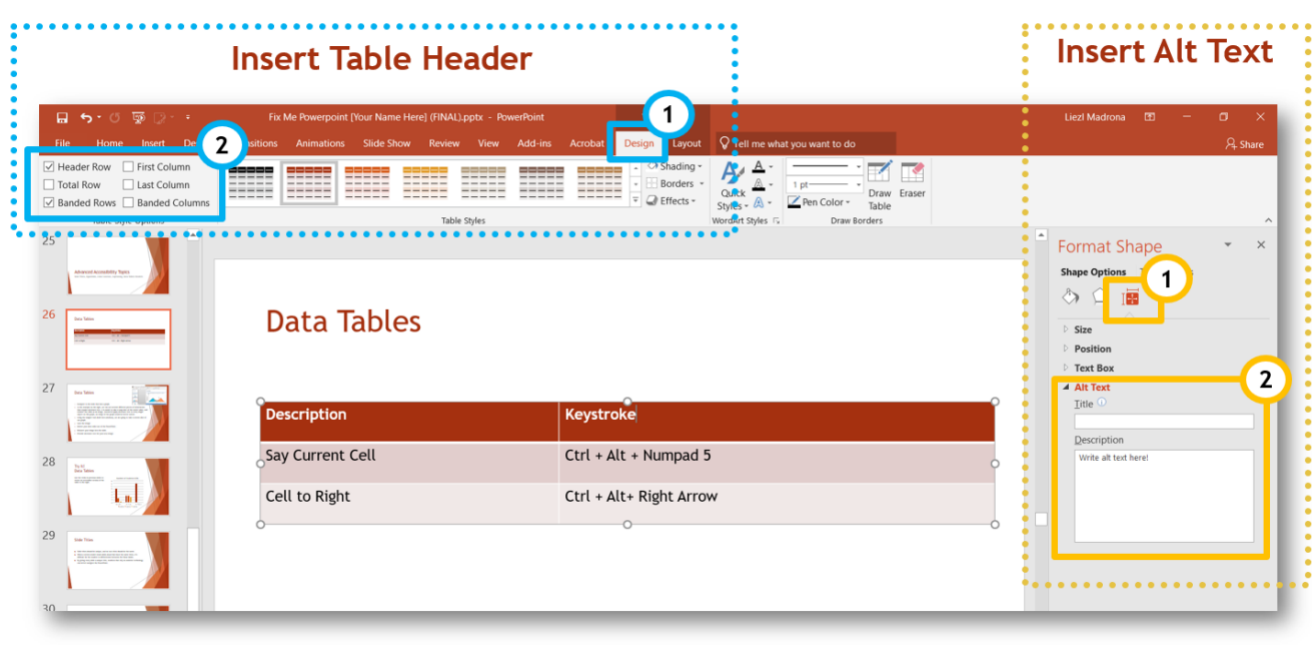
Figure 10: Screenshot showing how to insert table header in PowerPoint [61]

Further Exploration

You can self-enroll in a [free course offered through @ONE that covers creating accessible PowerPoints](#).

You can also explore accessibility in general through [WebAIM's page on PowerPoint accessibility.](#)

Citing Attributions in Slides

The basics of attribution were introduced earlier in this guide. Remember that an attribution should follow the acronym TASL, which stands for **T**itle, **A**uthor, **S**ource, **L**icense, with links to each, if available, a note about how you have modified the work or used it to make your derivative, and any additional notices that were provided that would be relevant to include. And a handy resource for creating properly formatted attributions is the [Open Attribution Builder](#) created by [Open Washington](#).

Below you will see two slides using the Socrates example introduced earlier. In the first slide, the caption provides the attribution for the image, much as it would in a text-based document. On the second slide, essential information from the New World Encyclopedia entry is shared in bullet points with an attribution statement created with the Open Washington attribution builder.[62]

"The Death of Socrates" by Jacques Louis David is in the Public Domain

Figure 11: Slide with image and attribution statement as a caption. [63]

Facts about Socrates

- Ancient Greek philosopher

- Known mainly through Plato

- Influenced Christian thought and the development of Western civilization

"Socrates" by New World Encyclopedia is licensed under CC BY-SA 4.0

Figure 12: Slide with a bullet-point summary from the attributed source. [64]

Including Your Chosen License

Each slideshow must have an explicit license and any other terms of use or important information. Here is an example of the final slide in a PowerPoint created for an OER textbook. Please also include the ASCCC OERI Information Page.

This PowerPoint was created by Jennifer Paris. Except where otherwise noted, it is licensed under a Creative Commons Attribution 4.0 International License.

Figure 13: Licensing slide in PowerPoint presentation[65]

Creating OER Videos

Identifying the Applicability of Content

If the videos created for an ASCCC OERI funded project are supplementary to a specific textbook, they must be based on an OER textbook. In the video and/or the video descriptor, please note the related OER textbook (if applicable) and the course(s) that commonly use it (by C-ID, if available). If the videos cover a general topic (not a specific textbook), please make reference to the course/s (including C-ID, when possible) that would be likely to use the content. For example, a video that addressed Piaget's cognitive stages would likely be of use to faculty teaching a number of child development, early childhood education, and psychology courses. Identifying the specific courses that could integrate the resource will facilitate the awareness of potential faculty users of it.

Consistency and Uniform Style

If more than one person is creating the videos, be sure that all creators follow a style guide that will ensure that the videos are consistent and uniform in style, accessibility, and attributions.

Accessibility for Videos

Videos can be an amazing educational tool. But they must be created to be accessible for universal design as well as for viewers that may have a hearing or visual impairment.

Captioning

Captioning is essential for students who are deaf or hard of hearing and benefits students who do not speak English as their first language or students who are in an environment where they cannot play audio.

Closed captioning is ideal, which means that viewers can choose to watch the captions or not. Open captioning means that the text is on the screen all the time. WebAIM offers some tips on creating captions.

Captions vs Subtitles. As a point of clarification, captions are intended for people with hearing disabilities and include audio information such as noises ("dog barking") or music in addition to words. Subtitles are usually intended for people who can hear but do not understand the initial language. For instance, a movie in English may have subtitles in French and Spanish. If you are captioning for a disability accommodation, make sure to include noises.

It is ideal to provide a text transcript in a document format in addition to captions. This allows all students to choose to read or watch (universal design!). It also is helpful to review content for exams.

The easiest and most efficient way to caption your videos would likely be fixing the auto-captioning provided by YouTube or other software. Many platforms, including YouTube, Screencast-O-Matic, and Zoom provide a transcript based on automatic voice recognition.

For YouTube, if the voice in a video is loud and clear, it often does a decent job. However, if the audio is quiet or the speaker has an accent, lisp, or even speaks too quickly, the results can be terrible. The timing is usually good, even if the actual text is rubbish, so it gets you part way there. You can fix the captions in YouTube itself or you can download the transcript. This does require having a YouTube account.

You can use software such as Camtasia to add captions to videos. You would need access to this software, which is pricey.

There are also captioning vendors that can be used to provide captions for videos. There would almost always be a cost involved with this.

And while it is not recommended, you can write and read from a script that then is uploaded as a transcript (you can use YouTube and other platforms/software to do this).
One concern with using a script is sounding unnatural and, honestly, boring. Research has found that people learn better from a conversational tone. It is also challenging to record videos while reading a script because you need to look at both the script and what you are trying to do on the screen/camera. And while you can add scripted voice after the video is recorded, that requires another level of technological capability.

Audio Descriptions
Audio description of visual aspects in a video is an accommodation for people with visual disabilities. It would include a verbal description of visual aspects that would be missing if a person was unable to see. Audio descriptions are not very common in TV and movies. When creating instructional videos, consider describing graphics and avoid saying "As you can see…".

It may not be practical to create videos with full audio descriptions, but these may need to be added if a faculty member using the video has a student that requires this accommodation.[66] An easy way to determine where audio descriptions are needed is by reviewing a transcript. If the transcript makes sense and accomplishes the learning objectives the resource is intended to without the accompanying visuals, audio descriptions are not needed.

Further Exploration
You can explore creating accessible videos and many different technologies to do on the Creating Accessible Video page on the National Center for Accessible Education Material website.

File Formatting/Uploading Preference

Please consult with your Project Facilitator regarding the file format to use.

Citing Attributions in Videos
The basics of attribution were introduced earlier in this guide. Remember that an attribution should follow the acronym TASL, which stands for **T**itle, **A**uthor, **S**ource, **L**icense, with links to

each, if available, a note about how you have modified the work or used it to make your derivative, and any additional notices that were provided that would be relevant to include. And a handy resource for creating properly formatted attributions is the [Open Attribution Builder](#) created by [Open Washington](#).

If your video content features remixed OER, the attributions may already be provided in that source content. For example, if the Socrates slide presentation above were to be turned into a video, the attribution statements are already included.

Another method is to put the attribution statement at the end of the video. In the video [Science Commons by Creative Commons](#), at the 1:52 mark a slide states that "All images and music used to create this work were licensed under Creative Commons licenses." Credit slides then list the originators alphabetically.[67]

Including Your Chosen License

Each video must have an explicit license and any other terms of use or important information. It would be ideal to include the license in the video itself (likely at the end) so that faculty that encounter the video at any place, will see how you have licensed it and what they are then able to with the video. Please also include the [ASCCC OERI Information Page](#).

When you upload a video to YouTube, you have the option of selecting the license type, one of which is a Creative Commons license. For good examples of this practice, take a look at the videos on the [Open Oregon channel on YouTube](#). You can find the license statement in the "about" box under the video.[68]

Creating OER Lab Manuals

Identifying Your "Model" of Lab Manual

There are two basic models of lab manuals that may be funded by the ASCCC OERI.

Lab Manual Related to OER Textbook

If the lab manual is related to a specific textbook, it must be based on an OER textbook. Please note the book the manual is related to and provide a link to easily access the book within the manual.

Lab Manual Related to a Specific Course

If the manual is over a course with general information (rather than a specific textbook), please specify the course (including C-ID, when possible) in the manual.

Consistency and Uniform Style

If more than one person is writing the lab manual, be sure that all creators have a style guide and a template that will ensure that the manual is consistent and uniform in style, accessibility, and attributions.

Creating an Accessible Lab Manual in Microsoft Word

Create your lab manual in Microsoft Word to create an accessible document. The Word document can then be saved in PDF for printing.

To create an accessible document, you will need to do the following:
- Create descriptive hyperlinks. As a lab manual is likely to be made available in a print form, ensure accessibility in the digital and print environment by using descriptive hyperlinks for the online version and providing the URL in parentheses without a hyperlink for those accessing the content in printed form.
- Provide meaningful alternative text for images.
- Apply heading styles correctly.
- Apply bulleted or numbered lists to groups of associated text.
- Apply table headers to tables.

LIST is an acronym to help you remember the accessibility principles you must address:
- **L** = Links
- **I** = Images
- **S** = Structure (Lists & Headings)
- **T** = Table[69]

The National Center on Accessible Educational Materials has another acronym to guide accessible documents.
- **S** – Styles are used for section headings
- **L** – Links are descriptive and meaningful

- **I** – Images have text descriptions
- **D** – Design is perceivable with high contrast
- **E** – Evaluation is holistic and authentic

You can explore this more on their [Creating Accessible Documents and Slide Decks page](#).[70]

Headings

Use heading styles built into Word or the editor tool in your platform rather than just making text bigger or bold. Screen reader users navigate around the headings similarly to how sighted people will visually skim a document by looking at the headings.

- Heading 1 is reserved for the title
- Avoid skipping heading levels (i.e., going from level 1 to level 3)

Images

Images need alt text even if they indicate it is a decoration. Alt text provides a written description of an image for people who use screen readers to read to them. If an image provides complicated information, you might need to provide an extended description in the main narrative text or provide it in a supplemental document.

Tables

It can be difficult for people who use screen readers to navigate tables. Here are a few tips:

- Do not use tables only for formatting purposes.
- Avoid using blank cells for formatting.
- Keep tables simple – avoid tables within tables or merged/split cells.
- Use table headings.
- Test the table yourself by tabbing through it to see the order.
- Use the tool in the editor to insert a table.

Lists

Use the built-in bullet or number function rather than dashes or asterisks – it lets the listener know they are going in and out of a list and states how many points are in the list.

When to use bullets

If your items are a group of equivalent ideas or terms, and the order is not an essential aspect of the concept, use a bulleted list.

When to use numbers

If your items are a sequence, steps to instructions, or an essential part of a whole (such as, "there are four things you need to know to complete this assignment"), use a numbered list.

Other Considerations

Here are a few more things to consider when creating the text to ensure accessibility:

- Avoid using color or highlighting as the only methods to signify meaning**.** Screen readers don't provide information about text color. In addition, students with color

blindness may be unable to see the contrast. Avoid the use of red, green, and orange in general.

- Use bold or italics for emphasis. Avoid underlining because screen readers interpret that as a hyperlink.
- Avoid adding white space to a document by using the space bar or tabs. Screen readers pick these up and each space or tab is read aloud to them. Instead use formatting, indenting, or styles to create white space.
- Ensure that formulas can be read by screen readers.
- Make sure any embedded multimedia is fully accessible (captions for video and transcripts for audio).[71]

Here is an accessibility checklist modified from one provided by Rebus that you can use to check that your lab manual addresses common accessibility requirements.

Table 7: Accessibility Checklist for Lab Manual[72]

Area of Focus	Requirements	Pass?
Organizing Content	Content is organized under headings and subheadings	
Organizing Content	Headings and subheadings are used sequentially (e.g. Heading 2. Heading 3, etc.) as well as logically (if the title is Heading 1 then there should be no other Heading 1 styles as the title is the uppermost level)	
Images	Images that convey information include Alternative Text (alt-text) descriptions of the image's content or function	
Images	Graphs, charts, and maps also include contextual or supporting details in the text surrounding the image	
Images	Images do not rely on color to convey information	
Images	Purely decorative images contain empty alternative text descriptions. (Descriptive text is unnecessary if the image doesn't convey contextual content information)	

Area of Focus	Requirements	Pass?
Tables	Tables include row and column headers	
Tables	Tables include a title or caption	
Tables	Tables do not have merged or split cells	
Tables	Tables have adequate cell padding	
Formulas	Formulas have been created using MathML	
Formulas	Formulas are images with alternative text descriptions, if MathML is not an option	
Font Size	Font size is 12 point or higher for body text	
Font Size	Font size is 9 or 10 point for footnotes or endnotes	

Citing Attributions

The basics of attribution were introduced earlier in this guide. Remember that an attribution should follow the acronym TASL, which stands for **T**itle, **A**uthor, **S**ource, **L**icense, with links to each, if available, a note about how you have modified the work or used it to make your derivative, and any additional notices that were provided that would be relevant to include. And a handy resource for creating properly formatted attributions is the Open Attribution Builder created by Open Washington.

Text-Based Content

If you use content in your lab manual that is not written by project authors, please use proper attributions. If the content comes from the one prior referenced OER textbook, that may be the only attribution needed. If you are remixing openly licensed sources, please review the Attribution for Multiple Sources section in the Creating an OER Textbook section of this guide.

Images

Captions remain a reliable way to provide the creators or owners of an image proper credit, while also using CC license attributions. The caption on the image below provides an example using endnotes for the attribution.[73]
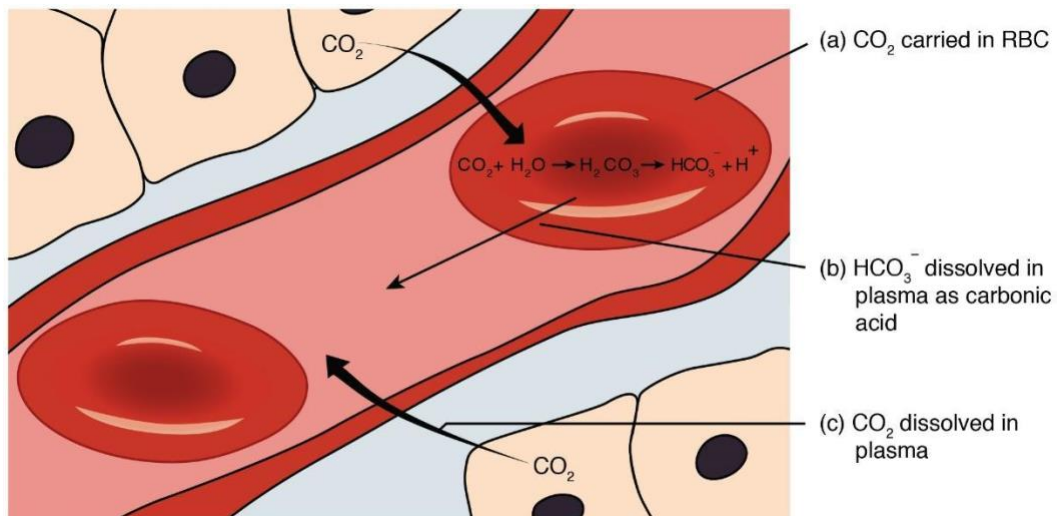
Figure 14: Example image of Carbon dioxide transport showing endnote citation[74]

Including License

Be sure to include the license you have chosen for your lab manual. Please also include the [ASCCC OERI Information Page](#).

Creating OER Test Banks

Identifying the Source of Content

Most of the time, test banks will be created based on the content in a textbook. Any created for an ASCCC OERI funded project must be based on an OER textbook. There may be times where the content is general (not related to a single textbook). If this is the case, the questions should be organized in a manner that facilitates their use.

Consistency and Uniform Style

If more than one person is contributing to the text bank, be sure that all creators have a style guide and a template that will ensure that the manual is consistent and uniform in style, accessibility, and attributions.

Creating a Test Bank

As OER need not be digital, test banks should be created in a manner that permits use outside of a course management system. Projects that are creating test banks should contact their Project Facilitator for formatting guidelines. ASCCC OERI staff will use Respondus to upload test banks to Canvas after the review process is complete.

Citing Attributions

The basics of attribution were introduced earlier in this guide. Remember that an attribution should follow the acronym TASL, which stands for **T**itle, **A**uthor, **S**ource, **L**icense, with links to each, if available, a note about how you have modified the work or used it to make your derivative, and any additional notices that were provided that would be relevant to include. And a handy resource for creating properly formatted attributions is the Open Attribution Builder created by Open Washington.

Outside Content

If you use content in your test bank that is not written by project authors, please use proper attributions. If the content comes from the one prior referenced OER textbook, that may be the only attribution needed. If you are remixing openly licensed sources, please review the Attribution for Multiple Sources section in the Creating an OER Textbook section of this guide.

Including License

Be sure to include the license you have chosen for your test banks. Please also include the ASCCC OERI Information Page.

Creating OER Instructor's Manuals

Identifying Your "Model" of Instructor's Manual

There are two basic models of instructor's manuals that may be funded by the ASCCC OERI.

Instructor's Manual Related to OER Textbook

If the instructor's manual is related to a specific textbook, it must be based on an OER textbook. Please note the book the manual is related to and provide a link to easily access the book within the manual.

Instructor's Manual Related to a Specific Course

If the manual covers a course with general information (rather than a specific textbook), please specify the course (including C-ID, when possible) in the manual.

Consistency and Uniform Style

If more than one person is writing the instructor's manual, be sure that all creators have a style guide and a template that will ensure that the manual is consistent and uniform in style, accessibility, and attributions.

Creating an Accessible Instructor's Manual in Microsoft Word

Create your instructor's manual in Microsoft Word to create an accessible document for your instructor's manual. The Word document can then be saved in PDF for printing if needed.

To create an accessible page or document, you will need to do the following:
- Create descriptive hyperlinks.
- Provide meaningful alternative text for images.
- Apply heading styles correctly.
- Apply bulleted or numbered lists to groups of associated text.
- Apply table headers to tables.

LIST is an acronym to help you remember the accessibility principles you must address:
- **L** = Links
- **I** = Images
- **S** = Structure (Lists & Headings)
- **T** = Table[75]

The National Center on Accessible Educational Materials has another acronym to guide accessible documents.
- **S** – Styles are used for section headings
- **L** – Links are descriptive and meaningful
- **I** – Images have text descriptions
- **D** – Design is perceivable with high contrast
- **E** – Evaluation is holistic and authentic

You can explore this more on their [Creating Accessible Documents and Slide Decks page](#).[76]

Headings
Use heading styles built into Word or the editor tool in your platform rather than just making text bigger or bold. Screen reader users navigate around the headings similarly to how sighted people will visually skim a document by looking at the headings.
- Heading 1 is reserved for the title
- Avoid skipping heading levels (i.e., going from level 1 to level 3)

Images
Images need alt text even if they indicate it is a decoration. Alt text provides a written description of an image for people who use screen readers to read to them. If an image provides complicated information, you might need to provide an extended description in the main narrative text or provide it in a supplemental document.

Tables
It can be difficult for people who use screen readers to navigate tables. Here are a few tips:
- Do not use tables only for formatting purposes.
- Avoid using blank cells for formatting.
- Keep tables simple – avoid tables within tables or merged/split cells.
- Use table headings.
- Test the table yourself by tabbing through it to see the order.
- Use the tool in the editor to insert a table.

Links
When creating a hyperlink**,** link meaningful text rather than "click here." Example: For more information, see the [UWEC website](#). If a screen reader user is navigating for links, "click here" has no meaning while "UWEC website" explains the link.

Lists
Use the built in bullet or number function rather than dashes or asterisks – it lets the listener know they are going in and out of a list and states how many points are in the list.

When to use bullets
If your items are a group of equivalent ideas or terms, and the order is not an essential aspect of the concept, use a bulleted list.

When to use numbers
If your items are a sequence, steps to instructions, or an essential part of a whole (such as, "there are four things you need to know to complete this assignment"), use a numbered list.

Other Considerations
Here are a few more things to consider when creating the document to ensure accessibility:

- Avoid using color or highlighting as the only methods to signify meaning. Screen readers don't provide information about text color. In addition, students with color blindness may be unable to see the contrast. Avoid the use of red, green, and orange in general.
- Use bold or italics for emphasis. Avoid underlining because screen readers interpret that as a hyperlink.
- Avoid adding white space to a document by using the space bar or tabs. Screen readers pick these up and each space or tab is read aloud to them. Instead use formatting, indenting, or styles to create white space.
- Ensure that formulas can be read by screen readers.
- Make sure any embedded multimedia is fully accessible (captions for video and transcripts for audio).[77]

Here is an accessibility checklist from Rebus that you can use to check that your textbook addresses common accessibility requirements.

Table 8: Accessibility Checklist for Instructor Manual[78]

Area of Focus	Requirements	Pass?
Organizing Content	Content is organized under headings and subheadings	
Organizing Content	Headings and subheadings are used sequentially (e.g. Heading 2. Heading 3, etc.) as well as logically (if the title is Heading 1 then there should be no other Heading 1 styles as the title is the uppermost level)	
Images	Images that convey information include Alternative Text (alt-text) descriptions of the image's content or function	
Images	Graphs, charts, and maps also include contextual or supporting details in the text surrounding the image	
Images	Images do not rely on color to convey information	
Images	Purely decorative images contain empty alternative text descriptions. (Descriptive text is unnecessary if the image doesn't convey contextual content information)	

Area of Focus	Requirements	Pass?
Tables	Tables include row and column headers	
Tables	Tables include a title or caption	
Tables	Tables do not have merged or split cells	
Tables	Tables have adequate cell padding	
Links	The link is meaningful in context, and does not use generic text such as "click here" or "read more"	
Links	Links do not open new windows or tabs	
Links	If links must open in a new window, a textual reference is included in the link information	
Embedded Multimedia	A transcript has been made available for a multimedia resource that includes audio narration or instruction*	
Embedded Multimedia	Captions of all speech content and relevant non-speech content are included in the multimedia resource that includes audio synchronized with a video presentation	
Embedded Multimedia	Audio descriptions of contextual visuals (graphs, charts, etc.) are included in the multimedia resource	
Formulas	Formulas have been created using MathML	
Formulas	Formulas are images with alternative text descriptions, if MathML is not an option	
Font Size	Font size is 12 point or higher for body text	
Font Size	Font size is 9 or 10 point for footnotes or endnotes	

*Transcript includes:

- Speaker's name
- All speech content
- Relevant descriptions of speech
- Descriptions of relevant non-speech audio
- Headings and subheadings

Citing Attributions

The basics of attribution were introduced earlier in this guide. Remember that an attribution should follow the acronym TASL, which stands for **T**itle, **A**uthor, **S**ource, **L**icense, with links to each, if available, a note about how you have modified the work or used it to make your derivative, and any additional notices that were provided that would be relevant to include. And a handy resource for creating properly formatted attributions is the Open Attribution Builder created by Open Washington.

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Images

Captions remain a reliable way to provide the creators or owners of an image proper credit, while also using CC license attributions. The caption on the image below provides an example using endnotes for the attribution.[79]
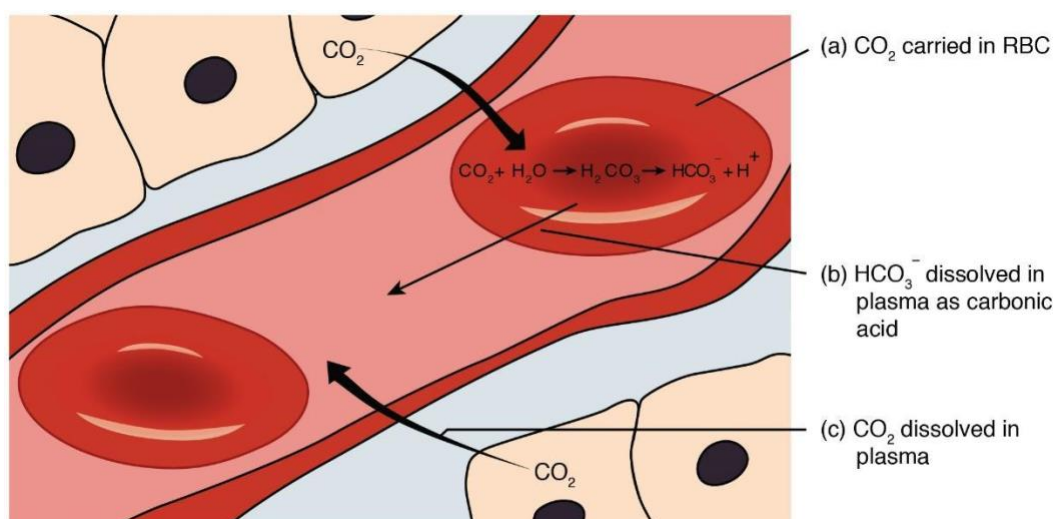

Figure 13: Example image of Carbon dioxide transport showing endnote citation[80]

Including License

Be sure to include the license you have chosen for your instructor's manual. Please also include the ASCCC OERI Information Page.

Creating OER Creative Works

If your ASCCC OERI funded project involves the creation of creative works (such as images, drawings, graphics, pieces of music, and pieces of art), here is some basic guidance. Please seek out additional information from your Project Facilitator as needed.

Identifying Course/Text Creative Works are Related To

If the creative works created for an ASCCC OERI funded project are supplementary to a specific textbook, they must be based on an OER textbook. Please note the OER book or the course/s (including C-ID, when possible) the creative works are related to.

Accessibility Considerations for Creative Works

Because there is such a variety of creative works, it is beyond the scope of this guide to provide accessibility guidance.

Citing Attributions

If the creators of the creative works used or modified openly licensed content, it is required that proper attribution is provided.

The basics of attribution were introduced earlier in this guide. Remember that an attribution should follow the acronym TASL, which stands for **T**itle, **A**uthor, **S**ource, **L**icense, with links to each, if available, a note about how you have modified the work or used it to make your derivative, and any additional notices that were provided that would be relevant to include. This can be done in any reasonable manner.

A handy resource for creating properly formatted attributions is the [Open Attribution Builder](#) created by [Open Washington](#).

Including License

Be sure to include the license you have chosen for each creative work. Depending on the type of creative work and how it will be shared, there are different ways to do this. Please also include the [ASCCC OERI Information Page](#).

Homework Systems and Interactive Exercises

Projects may also involve the development of content to populate an openly licensed homework system (such as My Open Math) or the creation of interactive exercises. Presently the OERI provides guidance with respect to developing accessible content for My Open Math and H5P. As other such tools emerge, further guidance will be developed.

Identifying Course/Text Creative Works are Related To

If the content in the homework system or interactive exercises for an ASCCC OERI funded project are supplementary to a specific textbook, they must be based on an OER textbook. Please note the OER book or the course/s (including C-ID, when possible) the creative works are related to.

Accessibility Considerations for Creative Works

Authors must be cognizant of the accessibility challenges that commonly emerge.

Citing Attributions

If the creators of the creative works used or modified openly licensed content, it is required that proper attribution is provided.

The basics of attribution were introduced earlier in this guide. Remember that an attribution should follow the acronym TASL, which stands for **T**itle, **A**uthor, **S**ource, **L**icense, with links to each, if available, a note about how you have modified the work or used it to make your derivative, and any additional notices that were provided that would be relevant to include. This can be done in any reasonable manner.

A handy resource for creating properly formatted attributions is the Open Attribution Builder created by Open Washington.

Including License

Be sure to include the license you have chosen for your homework system content or interactive exercises. Depending on the type, there are different ways to do this. Please also include the ASCCC OERI Information Page.

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