G O A

Design Lab

Online Course Style Guide

Introduction

About This Guide

In this guide, the GOA Design Lab shares recommendations to improve the usability, design, accessibility, diversity and inclusion, and content across your course. We outline *why* these factors matter in creating a more impactful, inclusive experience for learners. This guide is adapted from the same criteria used in the design of GOA's student and professional learning courses.

About The Design Lab

The mission of Global Online Academy is to reimagine learning to empower students and educators to thrive in a globally networked society. The Design Lab translates GOA's decade of experience building an innovative learning program into a suite of products and services for school leaders. We specialize in high-quality online and hybrid learning, competency-based learning, and learner-centered instructional design.

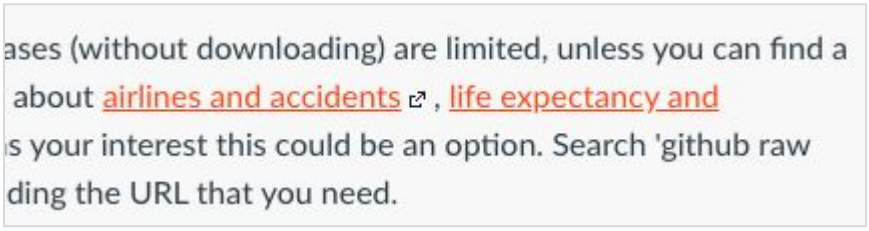
> Learn more about the design audit process and submit an inquiry on our website.

The Design Lab conducts design audits for schools, reviewing and offering detailed, customized reports on online classes and programs using the Style Guide as a foundation.

Usability

Link Styling

Ensure all links are styled in consistently.



This course uses a standardized, default link styling

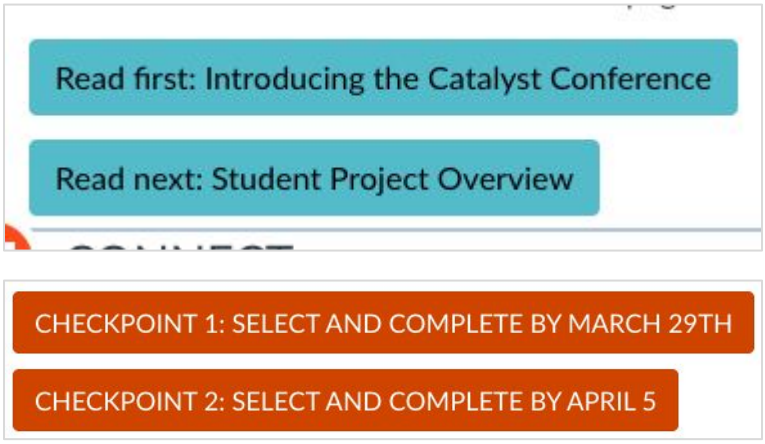
Why It Matters

Features that function similarly should also look similar – when links are styled in a standardized manner, learners will immediately recognize the text as clickable.

Usability

Navigational Elements

Ensure that navigational elements – like expanders, progress bars, or buttons – are used and styled consistently.



Interactive buttons in the same course use different color and title case versus upper case

Why It Matters

Features that function similarly should also look similar – when buttons are styled consistently, learners will immediately recognize the feature as clickable.

Usability

Labeling

Standardize the language used for recurring course elements. For example, if a course uses the convention “Module #” or “Unit α”, ensure that all pages carry forward that prefix.

If module or unit elements are prefixed with a numbering system, ensure that numbering system is consistently applied.

Labeling across modules and individual items is consistently applied

Why It Matters

Standardizing language used across course components reduces the learner’s cognitive load – when units or modules follow the same structure within a course, learners quickly recognize the activity or content type and associated expectations.

Usability

Pacing Guidance

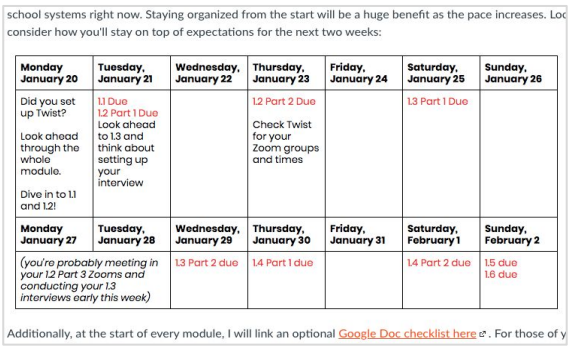
Pacing guides should be placed at the beginning of each unit or module in an accessible format – using a table built within the course page or an embedded Google – *not* an image-format version.

Why It Matters

Pacing guidance sets expectations for student engagement – this critical information should be made available in a format accessible to all students.

Top-right: Guide is built in an HTML table on the course page, using alternating row color to ease legibility; **Bottom-right**: Guide is shared in an embedded JPG, which is not accessible to visually impaired learners; if the image fails to load, learners would miss out on this critical information

Assignment	Due date
Learn about the Digestive System and CHECK YOUR UNDERSTANDING	October 13
Discuss: Creating a strong research page	October 15
Pick your first patient (GROUP ASSIGNMENT)	October 16
Submit your planning page (GROUP ASSIGNMENT)	October 19
Submit research section (GROUP ASSIGNMENT)	October 21
Reflect on your research section	October 22
Zoom call and Submit your diagnosis and treatment (GROUP ASSIGNMENT)	by October 25



school systems right now. Staying organized from the start will be a huge benefit as the pace increases. Loc
consider how you'll stay on top of expectations for the next two weeks:

Monday January 20	Tuesday, January 21	Wednesday, January 22	Thursday, January 23	Friday, January 24	Saturday, January 25	Sunday, January 26
Did you set up Twist? Look ahead through the whole module. Dive in to 1.1 and 1.2!	1.1 Due 1.2 Part 1 Due Look ahead to 1.3 and think about setting up your interview		1.2 Part 2 Due Check Twist for your Zoom groups and times		1.3 Part 1 Due	
Monday January 27	**Tuesday, January 28**	**Wednesday, January 29**	**Thursday, January 30**	**Friday, January 31**	**Saturday, February 1**	**Sunday, February 2**
(you're probably meeting in your 1.2 Part 3 Zooms and conducting your 1.3 interviews early this week)	1.3 Part 2 due	1.4 Part 1 due			1.4 Part 2 due	1.5 due 1.6 due

Additionally, at the start of every module, I will link an optional Google Doc checklist here . For those of y

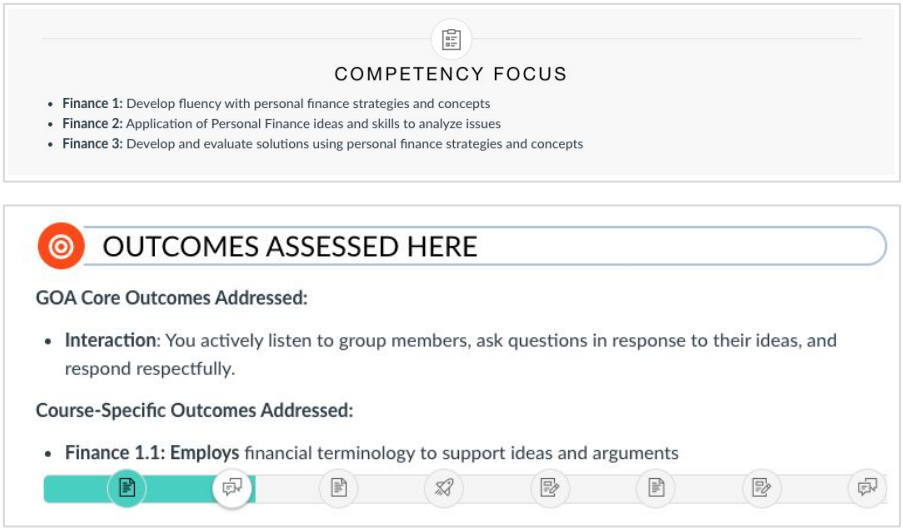
Design

Frontloading Competencies, Outcomes, or Objectives

Aligned learning outcomes or objectives should be outlined and consistently styled across module/unit introductions, as well as discussions and assignments.

Why It Matters

Making aligned outcomes or objectives explicit helps learners understand the *why* behind the content and activities in the course.



Top: Competencies featured at module-level; **Bottom**: Competencies frontloaded on discussion page

*grouping of information into familiar, manageable units

Design

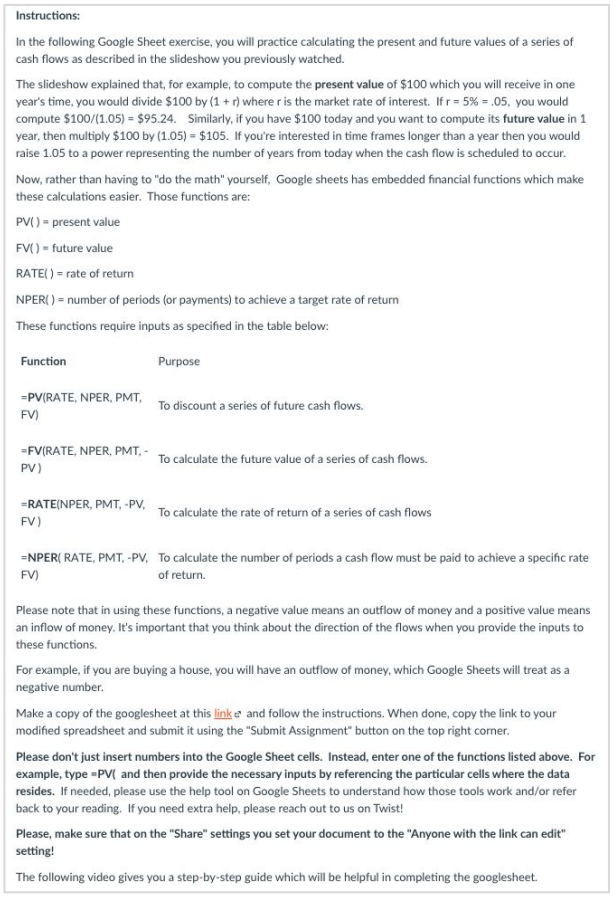
*Chunking**

Avoid long pages of text with little visual breaks. Where possible organize pages into sections by using breaks, headers, and alternating background colors.

Leverage page headers to chunk content into manageable, bite-sized pieces. For a given page with long vertical scroll, you might break the content down across multiple pages.

Why It Matters

Grouping instructional content into manageable sections aids in information processing and encoding in learners' brains.



Instructions:

In the following Google Sheet exercise, you will practice calculating the present and future values of a series of cash flows as described in the slideshow you previously watched.

The slideshow explained that, for example, to compute the **present value** of $100 which you will receive in one year's time, you would divide $100 by (1 + r) where r is the market rate of interest. If r = 5% = .05, you would compute $100/(1.05) = $95.24. Similarly, if you have $100 today and you want to compute its **future value** in 1 year, then multiply $100 by (1.05) = $105. If you're interested in time frames longer than a year then you would raise 1.05 to a power representing the number of years from today when the cash flow is scheduled to occur.

Now, rather than having to "do the math" yourself, Google sheets has embedded financial functions which make these calculations easier. Those functions are:

PV( ) = present value

FV( ) = future value

RATE( ) = rate of return

NPER( ) = number of periods (or payments) to achieve a target rate of return

These functions require inputs as specified in the table below:

Function	Purpose
=**PV**(RATE, NPER, PMT, FV)	To discount a series of future cash flows.
=**FV**(RATE, NPER, PMT, -PV)	To calculate the future value of a series of cash flows.
=**RATE**(NPER, PMT, -PV, FV)	To calculate the rate of return of a series of cash flows
=**NPER**(RATE, PMT, -PV, FV)	To calculate the number of periods a cash flow must be paid to achieve a specific rate of return.

Please note that in using these functions, a negative value means an outflow of money and a positive value means an inflow of money. It's important that you think about the direction of the flows when you provide the inputs to these functions.

For example, if you are buying a house, you will have an outflow of money, which Google Sheets will treat as a negative number.

Make a copy of the googlesheet at this link and follow the instructions. When done, copy the link to your modified spreadsheet and submit it using the "Submit Assignment" button on the top right corner.

Please don't just insert numbers into the Google Sheet cells. Instead, enter one of the functions listed above. For example, type =PV(and then provide the necessary inputs by referencing the particular cells where the data resides. If needed, please use the help tool on Google Sheets to understand how those tools work and/or refer back to your reading. If you need extra help, please reach out to us on Twist!

Please, make sure that on the "Share" settings you set your document to the "Anyone with the link can edit" setting!

The following video gives you a step-by-step guide which will be helpful in completing the googlesheet.

This course page does not feature any chunking – which would aid in "learnability" of the content

*grouping of information into familiar, manageable units

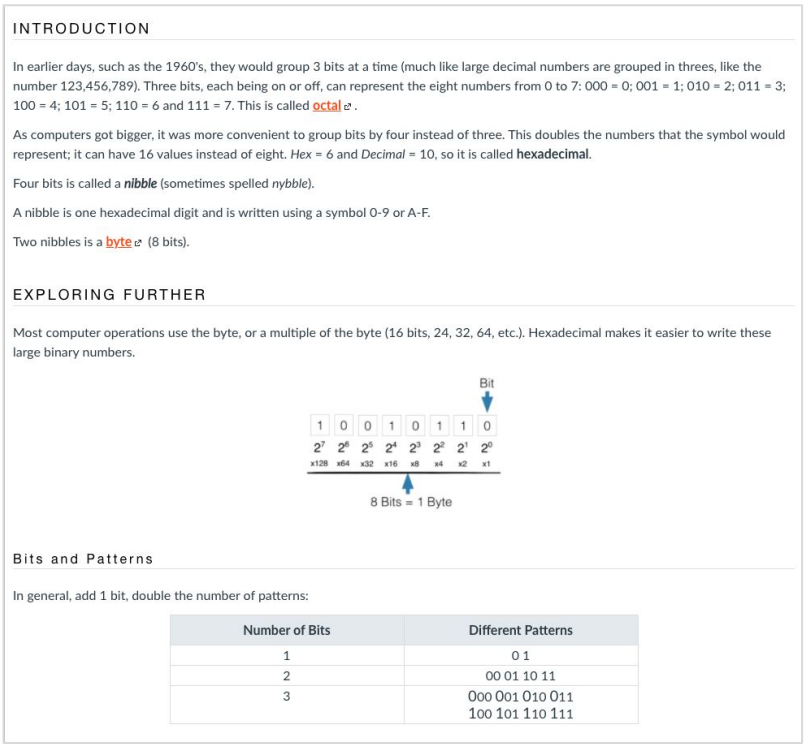
Design

Visual Hierarchy

Use headings to aid in chunking and to visually reflect the relationship between content items. Properly applied headings also enable the learner to quickly scan and orient to the page content.

Why It Matters

Headings give learners a sense of the page's organization and structure. For learners with visual impairment, headings may be used by a screen reader to help navigate a page.



INTRODUCTION

In earlier days, such as the 1960's, they would group 3 bits at a time (much like large decimal numbers are grouped in threes, like the number 123,456,789). Three bits, each being on or off, can represent the eight numbers from 0 to 7: 000 = 0; 001 = 1; 010 = 2; 011 = 3; 100 = 4; 101 = 5; 110 = 6 and 111 = 7. This is called octal .

As computers got bigger, it was more convenient to group bits by four instead of three. This doubles the numbers that the symbol would represent; it can have 16 values instead of eight. *Hex* = 6 and *Decimal* = 10, so it is called **hexadecimal**.

Four bits is called a ***nibble*** (sometimes spelled *nybble*).

A nibble is one hexadecimal digit and is written using a symbol 0-9 or A-F.

Two nibbles is a byte (8 bits).

EXPLORING FURTHER

Most computer operations use the byte, or a multiple of the byte (16 bits, 24, 32, 64, etc.). Hexadecimal makes it easier to write these large binary numbers.

Bits and Patterns

In general, add 1 bit, double the number of patterns:

Number of Bits	Different Patterns
1	0 1
2	00 01 10 11
3	000 001 010 011 100 101 110 111

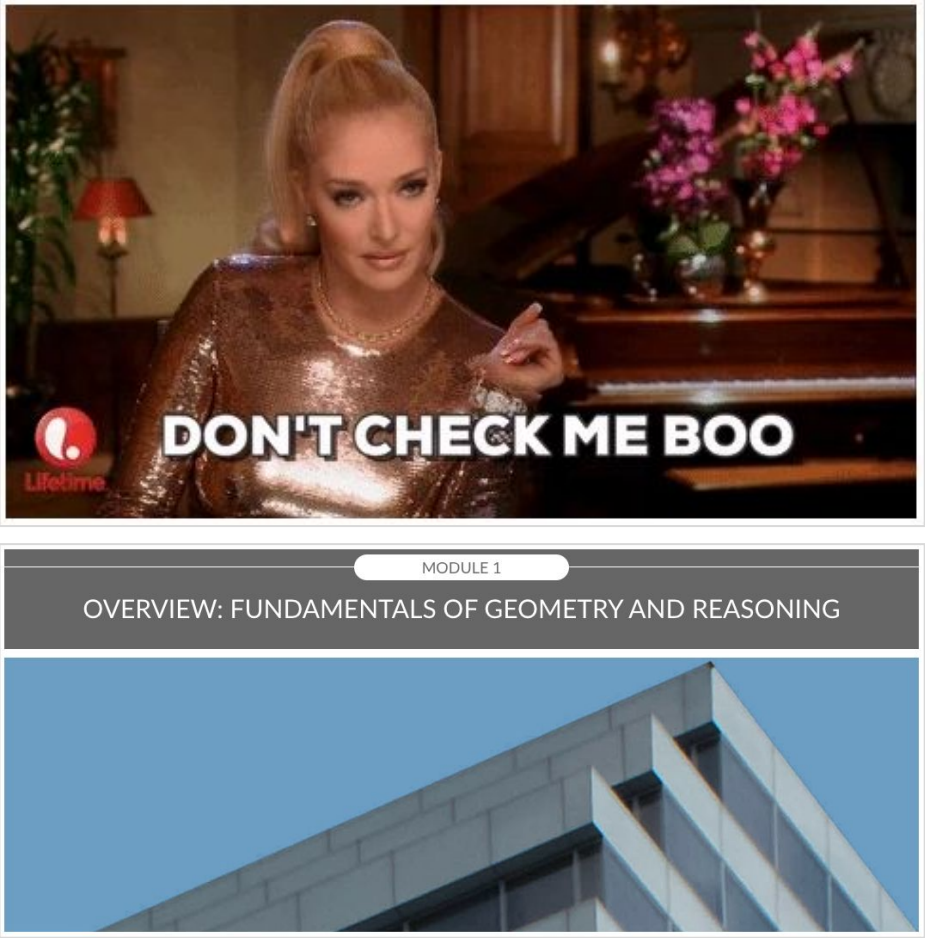
This course page uses a properly applied heading structure which decreases in size for related sub-topics

Design

Quality & Relevance of Images

Use images that are relevant to course content and avoid quick, flashing gifs. Ensure image resolution is appropriate for use – if you're using an image for a page banner, it needs to be high-quality.

A simple way to find high-quality, openly licensed images is via a Google Image search. Toggle the **Tools** menu open, then select *Medium* under *Size* and *Creative Commons licenses* under *Usage Rights*.



Top: Animated gif used in a graded course assignment – not relevant to course content;; **Bottom**: Module banner appears blurry due to low-resolution

Why It Matters

Images should complement – not distract from – the learning experience. Animated gifs can be disruptive and even harmful to learners with certain photosensitivities.

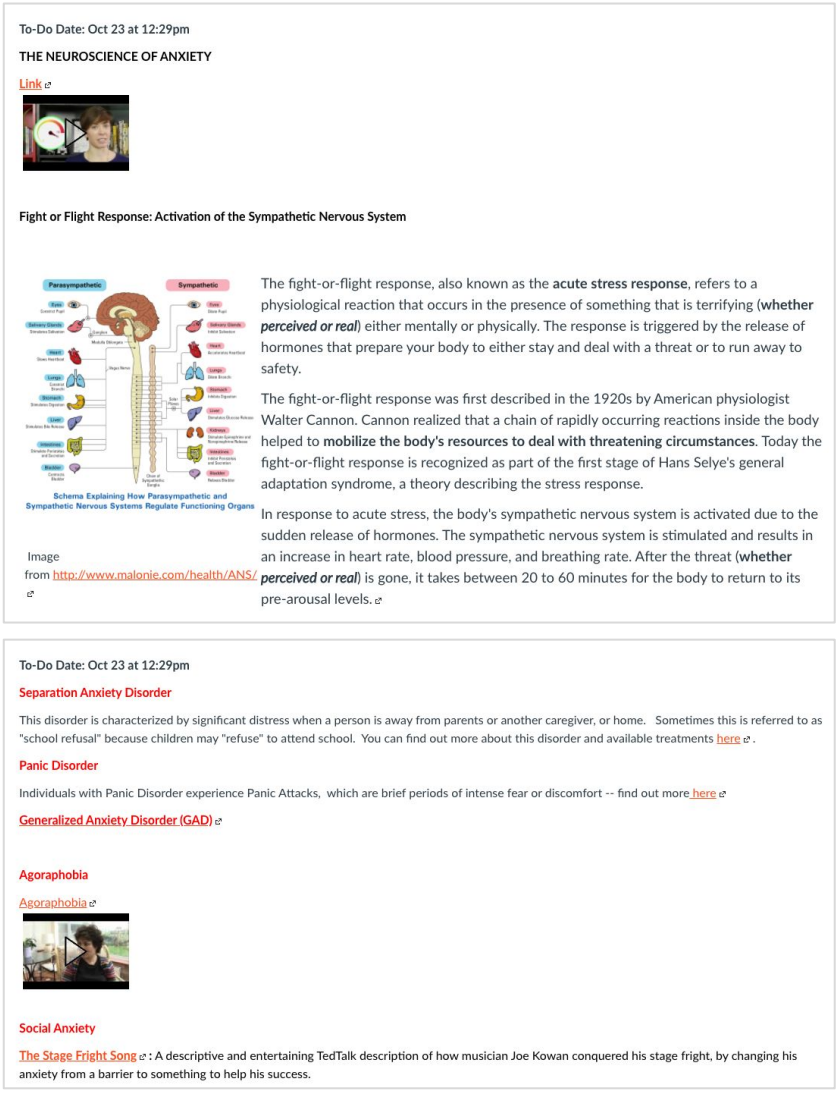
Design

Visual Consistency

Visual elements across the course – text styling, spacing between sections, presentation of content in tables, or even use of sentence case versus title case on headings – should be consistently applied. If using a standardized course template, it should be applied to *every* course page – not sporadically.

Why It Matters

Creating visual consistency across a course not only brings a level of professionalism to the learning experience, but also contributes to a learner's ease of navigation.



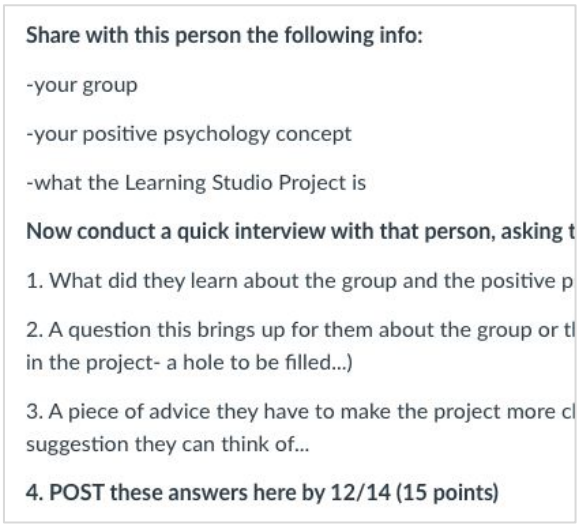
Back-to-back pages in a course use different type styling (size and color), inconsistent spacing between paragraphs), and inconsistent style of headings

Accessibility

Using Numbered or Bulleted Lists

Avoid making your content only *look* like lists are in use by manually entering bullet symbols or numbers. Instead, use the *Number list* or *Bullet list* tool in your Learning Management System to style your content.

Nest list elements to create structure and to convey relationships between items.



Bullets and numbers on list items are manually created

Why It Matters

When lists are formatted properly, non-sighted learners with a screen reader will be able to distinguish the number of items in a list, and be able to jump from list to list in the content.

When lists are created correctly, they are also easier for sighted learners to scan and read.

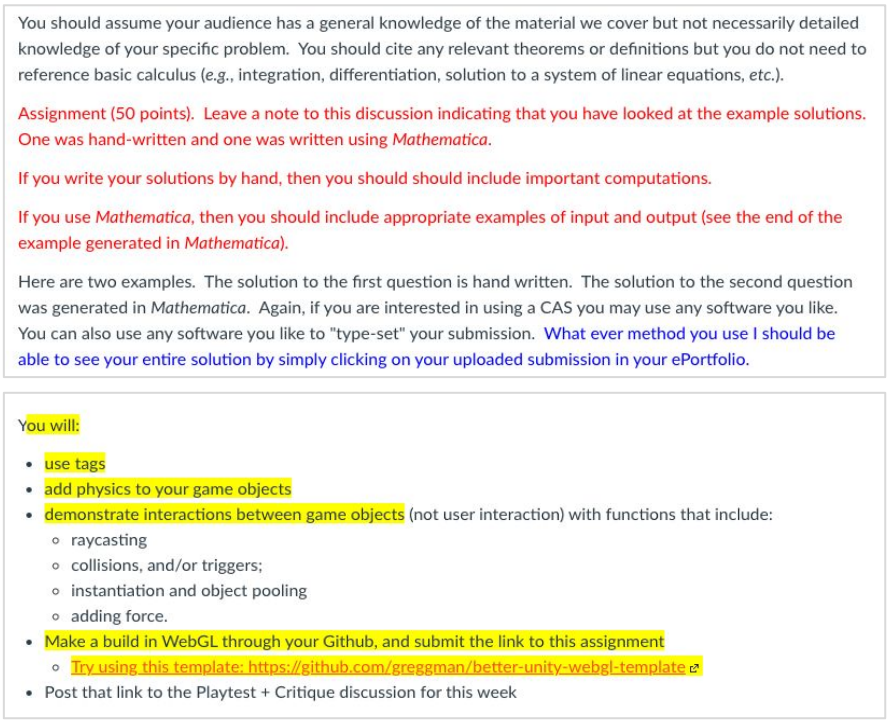
Accessibility

Using Color

Avoid using color alone to convey importance – such as using red text or applying a yellow highlight on an assignment page. Instead, use a callout box or other visual treatment to make important instructions stand out.

Why It Matters

Learners with colorblindness will not pick up on the importance of text if color *only* is used to convey meaning.



You should assume your audience has a general knowledge of the material we cover but not necessarily detailed knowledge of your specific problem. You should cite any relevant theorems or definitions but you do not need to reference basic calculus (*e.g.*, integration, differentiation, solution to a system of linear equations, *etc.*).

Assignment (50 points). Leave a note to this discussion indicating that you have looked at the example solutions. One was hand-written and one was written using *Mathematica*.

If you write your solutions by hand, then you should should include important computations.

If you use *Mathematica*, then you should include appropriate examples of input and output (see the end of the example generated in *Mathematica*).

Here are two examples. The solution to the first question is hand written. The solution to the second question was generated in *Mathematica*. Again, if you are interested in using a CAS you may use any software you like. You can also use any software you like to "type-set" your submission. What ever method you use I should be able to see your entire solution by simply clicking on your uploaded submission in your ePortfolio.

You will:

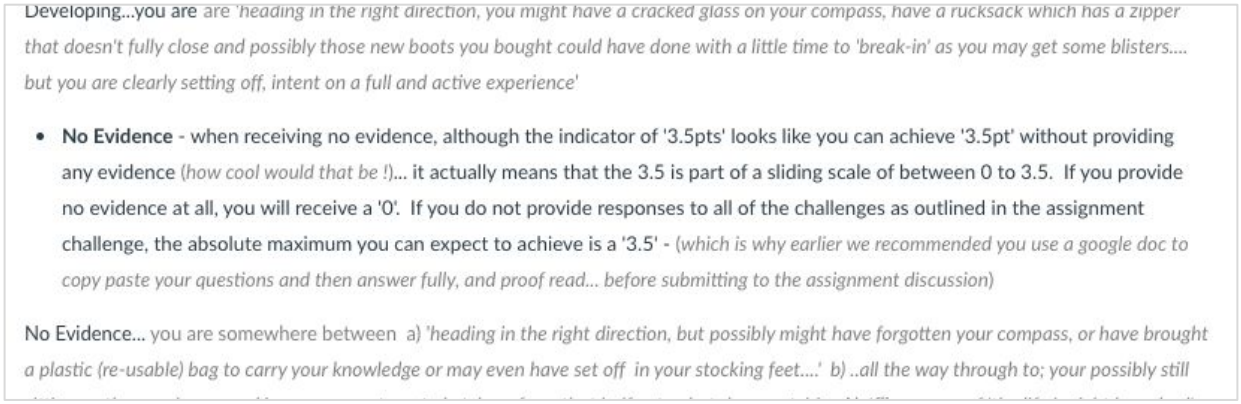
- use tags
- add physics to your game objects
- demonstrate interactions between game objects (not user interaction) with functions that include:
  - raycasting
  - collisions, and/or triggers;
  - instantiation and object pooling
  - adding force.
- Make a build in WebGL through your Github, and submit the link to this assignment
  - Try using this template: https://github.com/greggman/better-unity-webgl-template
- Post that link to the Playtest + Critique discussion for this week

Top: Red text is used to callout importance on an assignment page; **Bottom**: A yellow highlighter is used to note critical elements in a set of instructions

Accessibility

Using Italics

Use italics sparingly for creating emphasis and especially avoid use on long blocks of text.



Developing...you are are *'heading in the right direction, you might have a cracked glass on your compass, have a rucksack which has a zipper that doesn't fully close and possibly those new boots you bought could have done with a little time to 'break-in' as you may get some blisters.... but you are clearly setting off, intent on a full and active experience'*

- **No Evidence** - when receiving no evidence, although the indicator of '3.5pts' looks like you can achieve '3.5pt' without providing any evidence (*how cool would that be !*)... it actually means that the 3.5 is part of a sliding scale of between 0 to 3.5. If you provide no evidence at all, you will receive a '0'. If you do not provide responses to all of the challenges as outlined in the assignment challenge, the absolute maximum you can expect to achieve is a '3.5' - (*which is why earlier we recommended you use a google doc to copy paste your questions and then answer fully, and proof read... before submitting to the assignment discussion*)

No Evidence... you are somewhere between a) *'heading in the right direction, but possibly might have forgotten your compass, or have brought a plastic (re-usable) bag to carry your knowledge or may even have set off in your stocking feet....' b) ..all the way through to; your possibly still*

This course uses long blocks of italicized text in light gray color, making the content very difficult to read

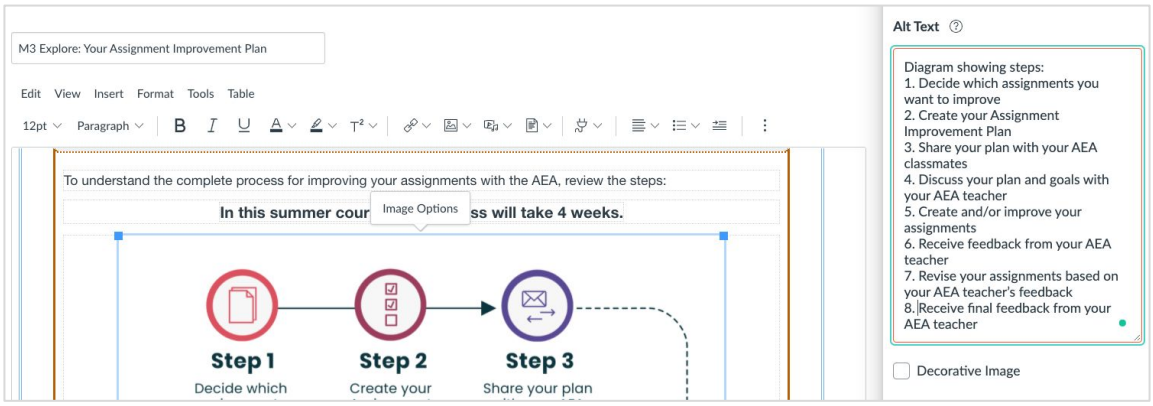
Why It Matters

Long blocks of italicized text can be difficult for some learners to read – especially if presented in a low-contrast color. Instead, consider using bold or another type of visual callout.

Accessibility

Accessible Image and Video Content

Consider adding "alt-text" to images to describe image content to learners who cannot see them (used by screen reading tools or if text displays when images fail to load). Most Learning Management Systems provide an alt-text entry field within the upload/embed image function.



An accessible, full-text alternative of the infographic content is made available in the alt-text field

For learners experiencing hearing impairment or to aid comprehension of ESL learners, video content should feature closed captions or be accompanied by a full-text alternative (in a Google document or Word document; PDFs are *not* often inherently accessible).

Tip: All YouTube content features automated closed captions. Accuracy of captions is often 90% or better.

Why It Matters

Ensuring images and video content are accessible to all learners creates a more equitable experience. If an image fails to load given low-bandwidth or other unexpected reasons, alt-text also displays in place of the image – ensuring your learners don't miss out on any contextual information that use of the image conveyed.

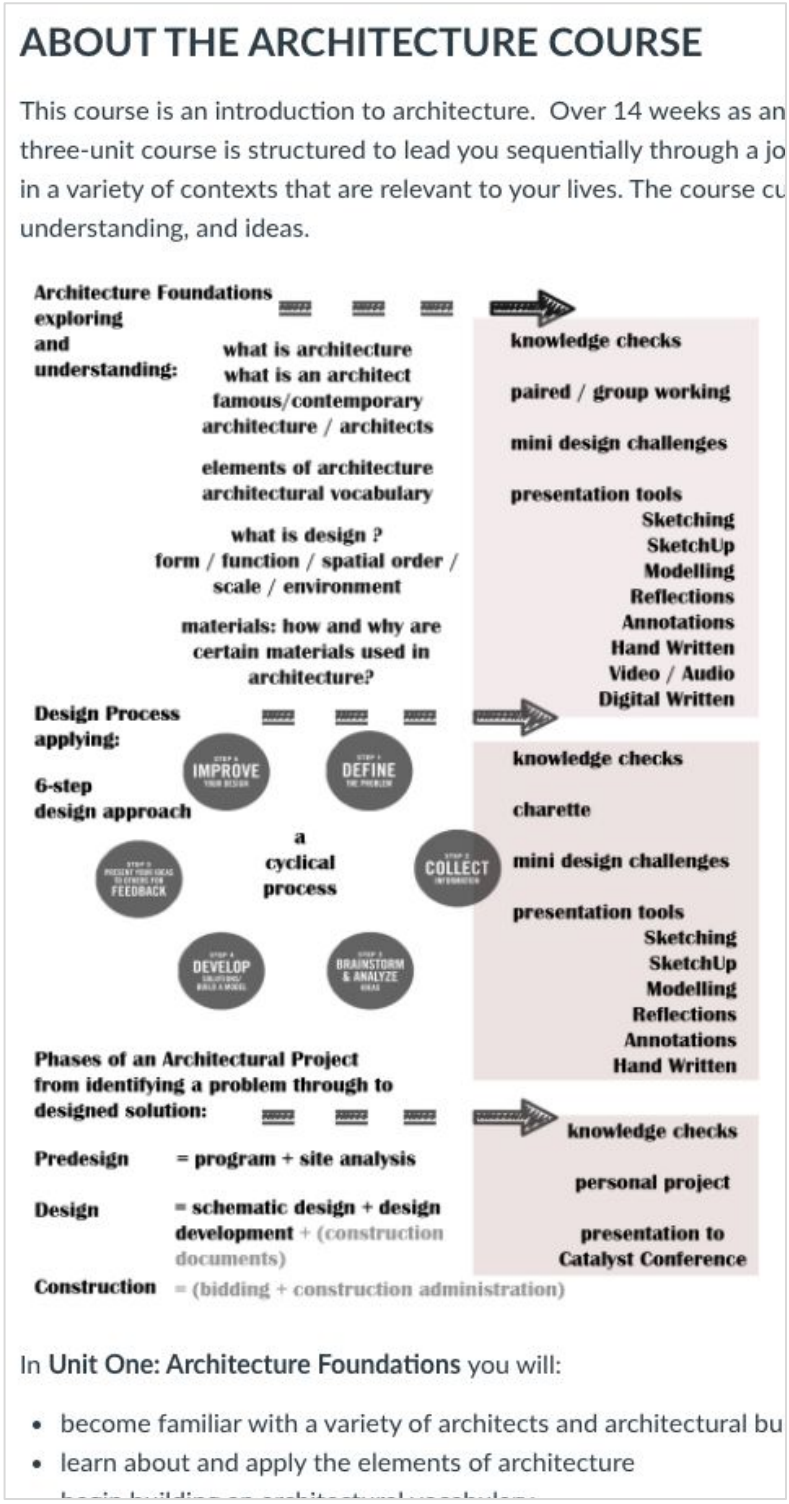
Accessibility

Text-Heavy Images

Avoid using text-heavy images – especially if resolution is low. Often, adequate alt-text is impossible to describe the image in its entirety. Rebuild the text-heavy images as HTML page content; if that is impossible, consider finding an alternative.

Why It Matters

When images are not accessible to vision imparied learners, or that simply fail to load, learners miss out on important content that may negatively impact their understanding.



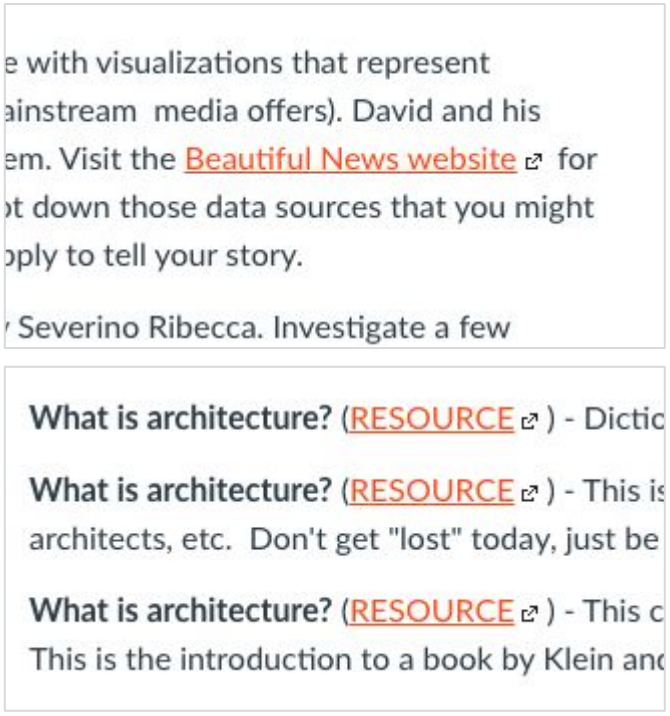
Text-heavy image is difficult to read due to low-resolution, as well as font choice in design

Accessibility

Descriptive Links

Ensure all hyperlinks throughout the course are descriptive. Descriptive links provide learners with important context of where clicking the link will take them. Avoid using generic language, like “click here” or “more here”.

For downloadable resources in the course, consider amending files names with the course name “Cybersecurity_” at the beginning and the course term “_FA2020” at the end, so learners know where and when the file originated if they revisit it on their local device.



Top: Link is descriptive, using the name of the website destination; **Bottom**: Links are generic, instead of using web resource name

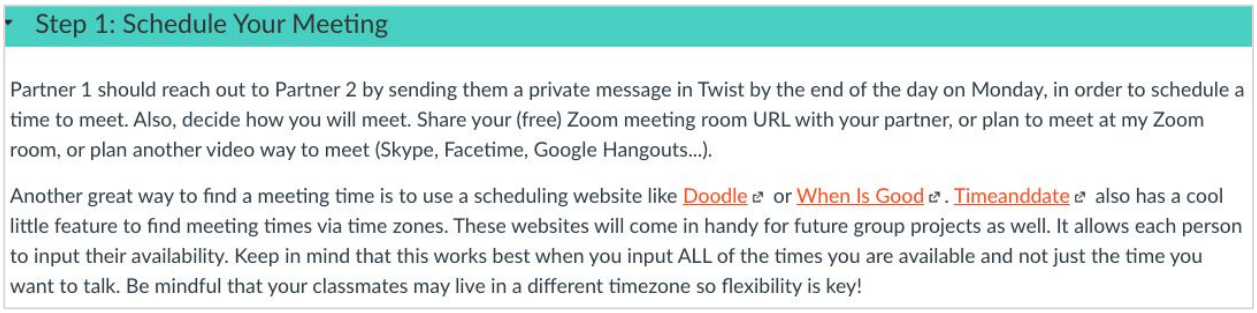
Why It Matters

Learners with vision impairment may use a screen reader to navigate the course, moving from link to link using a tab key. Providing link text that is meaningful and substantive is important.

Inclusion & Equity

Accommodating & Supporting Time Zones

At GOA, we bring learners together from around the globe. If your course does the same and features a synchronous requirement – whether required or optional – you must account for and accommodate collaboration across time zones. Provide tools that assist learners in navigating time zone conversions easily and ensure learners have access to technology that facilitates any synchronous group.



When asked to collaborate with fellow learners across time zones, GOA courses provide guidance and tools to aid in coordination and scheduling

When scheduling synchronous components, offer two options that cover most global time zones. Share time zone converter tools that help learners understand time differences based on location. Equip learners with adequate technology that supports synchronous collaboration – like FaceTime or Google Hangouts.

Why It Matters

Ensuring learners have access to engage in course requirements in their local time creates an equitable experience for all.

Inclusion & Equity

Incorporating Diversity – Images & Resources

Be cognizant of the diversity in image and resource selection in your course. The learning experience should reflect the authentic representation of the target learning community.

Why It Matters

Learners should be able to recognize themselves in the visual representation, and ensuring diverse "voices of expertise" in course materials fosters inclusion and increases awareness.

GOA

Design Lab

Course Design Checklist

The following checklist serves as a tool to self-assess your course and identify areas of improvement. There is always room to grow, and we recommend incorporating use of this resource into your regular course maintenance processes.

Checklist item	Confirmed by
Usability	
All links are styled with default underlined orange	
Navigation elements, including naming convention used, are consistent across pages	
Unit/module Includes placeholder schedule or pacing guidance	
All content links, buttons, and navigational elements work	
Design	
Unit/module introduction includes alignment to outcomes	
Assignment or discussion pages include alignment to outcomes	
Pages leverage chunking to break up text	
Use of headings are applied appropriately	
Visual elements are consistently applied (i.e., color, size, and placement of recurring features is standardized)	
Images are relevant to course content and high-quality	
Accessibility	
Color is not used exclusively to imply meaning or significance	
When possible, videos feature Closed Captions and audio includes full-text transcripts	
Pictures, charts, and graphs that contain information or data have appropriate alternative text or a full-text alternative is made available	
Links are descriptive	
Adequate color contrast is applied	
Diversity & Equity	
Global time zones are accommodated for synchronous components and related tools and supports are provided	
Course materials and images reflect a variety of perspectives (i.e., across race, gender, ethnicity, and culture)	