This module serves as a Weekly Overview template for a possible online lesson. The notes in red serve as tips that you should delete before students see them. It could be issued to students and available on the LMS for students to prepare for the week and clarify expectations.

Module Template example

Week 10 Introduction to Geology & Pandemic Responses

Most people think of Geology as a topic that applies to digging up rocks, but as we have learned so far in this class, there are many areas of Geology that work on current issues and problems. But what about pandemics? What can Geology be expected to contribute in times when Biology seems to be the Science *de jure*?

(Many people often skip this part, but it is good to give an intro paragraph that immediately answers the "why are we learning this" question. This example will be a module in an *Intro to Geology* class that was going to be a lecture on the effects of Geology on modern movement and distribution patterns. It will be reformatted slightly to be a problem based multi-week lesson addressing how Geology can help in times of a Pandemic)

Goal:
For this module, you will explore how Geologic occurrences like slope failure can affect patterns of distribution even in non-Geologic emergencies.

(This is usually a general description of what you will do. It will need to cover all objectives/competencies/etc,but does not have to be specifically measureable itself.)

Weekly Objectives:
- Given a list of reading sources on the Geologic occurrences (CN), learners will create a PSA on reacting to sudden network disruptions (B) that meets all requirements of the "Geologic Pandemic Responses PSA" rubric (CR).
- (Other objectives as needed)

(This is a specific statement of what leaners will do and how they will prove they learned something. There are many different formats for this. There can by multiple objectives for one week, or one that last many weeks. It contains a Condition (CN) – this is what content and/or activities you give them, a Behavior (B) – what learners will do with what they are given, and a Criteria (CR) – how you will grade or determine they learn what they need to learn (this would also be the grade on a test or the Pass/Fail moment, the example is given of how to use an ungraded rubric)

Alternative: If you use the course learning outcomes, these would focus more on the Behavior (B) as a skill they would demonstrate. For example: Create a Public Service Announcement that explains how to react to sudden Geologic disruptions to network systems.

Alignment:

This lesson aligns with the following National/State/University/Program standards

(**OPTIONAL:** This section may be required by various entities or institutions. If you have to, make sure to include this. If not, don't worry about it)

Activities:

This is the list of activities you will work through this module

- Read through this week's Reading/Watching List
- Search online for news stories or other sources of information
- Share your stories with everyone else in the Discussion Forum
- Complete the Geologic Pandemic Responses PSA project
- Share your PSA on your blog along with the Reflection paragraphs

(This will be the suggested order of everything you will ask learners to read/watch/do this week. Details/links/instructions will be on upcoming pages/sections, so they are not necessary here If your LMS system allows it, making each list item a link to that item helps.

The list above is an example of what could be accomplished in a week, other activities that could take the place of these could be:

Text-book readings
Discussion forums
Knowledge checks/quizzes
Online synchronous meetings (Zoom)
Group work

Anything else they would do – list it all. If the list is more than 3-5 things, consider cutting back on the list, or expanding it to be more than one week)

Time:

This module should take 2-4 hours of work over three weeks to complete.

(**OPTIONAL:** most online modules have this, but if you think it will stress your students out to include this, then feel free to skip it. This example is showing a module with a project that will last several weeks. If you do a multi-week project, make sure to still create weekly overviews like this and just note that learners are continuing the work from last week)

Week 10 Reading/Watching List

- Is COVID-19 Nature's Revenge?

  Many people think that we can look to Geology to see if COVID-19 is nature fighting back. This is a bit far-fetched considering we could have easily stopped COVID-19 with more diligence, but now who knows.

- Geological Disaster Prevention and Control and Resource Protection in Mineral Resource Exploitation Region

  This paper examines Geologic disaster possibilities in regions of China. Think about the possibility of this occurring during a pandemic quarantine.

- Geo-information Technology for Crisis Management

  This is a good resource on some of the basics in this topic.

  (This is where you would make a list of all resources learners need to read for the week, with links to content where needed. If an external resource is not perfect, that is no problem. Feel free to add a paragraph or two of why it is not perfect. Model critical thinking of resources for your learners. This also adds some teacher presence to the lesson.)

Week 10 Discussion

For this week, I want you to find at least two resources not on the Reading List that relate to the topic for the week. Share those resources in the discussion forum, as well as a few sentences about why you shared it.

> (This is one of many ways to encourage social presence, as well as getting learners used to searching for their own materials. If you need to grade this, then you can add parameters for that in here as well. Usually you would insert the discussion forum itself right here on the page in most LMS systems. The instructions here are based on a low-stakes Pass/Revise grading scheme designed to keep online learner stress low.)

Week 10 Project

For the next three weeks, I want you to think about how Geologic disasters could impact areas that are already under pandemic quarantine. Think of a specific geologic disaster (flooding, landslide, etc). Look through the resources that other learners have shared in the discussion forum for this topic. Look for some more specific resources as well.

Begin developing a PSA (Public Service Announcement) as a brief explanation of the possible problem, steps to prepare for it, and tips for those caught in the middle of it.

You will be responsible for choosing how to create this PSA. Some examples formats include:

- an infographic
- a short 3-4 minute video
- a website
- some other creative option as well

Each week, I want you to send me your project in progress so we can discuss your progress using the Geologic Pandemic Responses PSA Rubric below. Your final submission will include the Reflection (see the next page).

> (Ideally, you would have some more examples or details for the submission ideas here as well. This is an example of an "ungraded" project that will be more looked at as "Pass/Revise" each week. If you need to assign a grade or give some kind of test in place of this, you would adjust the instructions accordingly. Also, if in addition to this project you want to include a Knowledge Check, it would go before this page. Basically a Knowledge Check is a low stakes set of straight forward multiple choice/true-false/etc questions that students can take as many times as they want. The purpose of these questions is to give students a feeling of what information you want them to learn from this lesson.)

Geologic Pandemic Responses PSA Rubric

Criteria	Target Description	Point value	Points earned	Comments
Accuracy of Information	PSA information is accurate, current, and up to date. All information was critically assessed for relevance, accuracy, and authority. Verification or corroboration of the accuracy and completeness of the data or representation of facts is clearly evident.	20	**20**	*(instructor feedback)*

Quality of Information	PSA information is sufficiently specific, clear, and appropriate. Information was retrieved and compiled from credible sources. All information and relevant information was included.	20	**20**	*(instructor feedback)*
Helpfulness of PSA	PSA provides valuable information to assist people in event of a Geologic disaster in the time of a pandemic. The Geologic disaster is briefly explained, appropriate steps to prepare are included, and tips on how to react after the disaster are concise and easy to understand.	20	**20**	*(instructor feedback)*
Mechanics	The PSA is complete and operates as intended. Informational elements have been entered correctly with no spelling or grammatical errors. All cited resources are appropriately attributed and formatted in APA format.	20	**20**	*(instructor feedback)*
Reflection	Reflection post or submission adequately examines the choices that were made in creating the PSA, what limitations were faced, and what lessons were learned in the process.	20	**20**	*(instructor feedback)*
		Total Points:	**100**	

(This rubric is an example of one with grades so that you can see what it will look like, but you could also remove the grade columns or replace with "Pass/Revise" columns as well.)

Week 10 Reflection

When submitting your project, you will create a blog post (or write out the responses here if you prefer) with the link to your PSA, along with 2-3 paragraphs reflecting on the choices you made for the project. Consider these questions:

- Why did you choose to create the PSA the way you did?
- Why did you choose the topics you covered?
- What limitations did you face in creating it?
- What did you learn about your own abilities in the process?

Think through these questions and any others you can think of while creating a reflection. Remember that you have three weeks to complete this project, so this part of the project will not happen until the third week.

(This is where you can build some cognitive presence into your course. It is always a good idea to have learners reflect on why they made the choices they did. If you are using a rubric, this is a good place to include that so they will see how this will be evaluated or graded.)

Up Next Week

Next week we will continue working on the PSA projects. There will be a few new resources to read, and you will have a new question to answer in the discussion forum as well as a new Knowledge Check. But the main work will continue to be on the PSA project.

(This is not a necessary component, but it really helps your learners know what to expect as they move through your course.)

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