**Discussion questions for Geology and the Environment**Karin Kirk, SUNY Empire State College

**Module 1 – Icebreaker**

Discussion Topic: Memorable Geologic Event

Objective: In 3 to 5 sentences identify a memorable geologic event (such as flood/earthquake/volcanic eruption/storm/landslide/coastal erosion) that was reported on the national or international news. State what about this event caused it to be memorable for you.

After you have posted your response, return to this page and read what others have written. What do you remember about the events others in the class mentioned? Where were you when they happened? How did this event impact you, if at all?

Monitor your original discussion thread. What new information was added? By questioning classmates who respond to your initial statement what can you say about the causes and effects of this event? What questions have you identified that would help you to better understand why it happened?

Each person should, in addition to their original comment, enter a minimum of three additional responses to events identified by others in the class.

**Module 2 - Plate Tectonics**

Discussion Topic: Emergence of Novel Scientific Ideas

It took some 50 years for the ideas of Alfred Wegener to be widely accepted. What can a community do to accelerate the validation of new ideas and theories?

Note: Please be clear and distinguish between your opinions (thoughts that cannot be proven true or false) and facts (information that can be shown to be true or false). Credit source when putting forth opinions and facts of others (check www.esc.edu/writer for details). It may be useful to think about why so many, now obvious, concepts were resisted for so long when first put forth, such as the earth being round, movement of planetary bodies relative to the earth, or age of the earth.

**Module 3 – Earthquakes and Volcanoes**

Discussion Topic: Earthquake and Volcano Prediction

What are some pros and cons of attempting to forecast earthquakes/volcanoes? Should governments restrict use of land susceptible to earthquake/volcano effect?

What's important is to back up your ideas with examples. This takes time but helps you make a case for what you believe in that is persuasive. In your response consider geologic time vs the attention span of the average human (about 15 minutes ;-) and how this relates to natural disaster prediction.

Please feel free to critique the comments of others while supporting your statements with examples.

**Module 4 – Soils, Mass Wasting and Coastlines**

Discussion Topic: Land Use

The preceding chapters discussed numerous examples of problems created in part due to ignorance of the earth systems being perturbed. As we come to better understand these systems how should this information be used to minimize future problems associated with natural processes?

As you read the assigned chapters are there some "duh" moments :) Like "Duh - what were they thinking?" Are the mistakes we've made as a society due to ignorance or human nature?

**Module 5 – Water Resources**

Discussion Topic: Hydroelectric Dams

Hydroelectric dams provide a source of clean, renewable energy. However the impoundment of water behind a dam also has its drawbacks. What use of the water should take precedent? Is the use of water to produce energy more important than other uses, such as to allow the migration of fish to their spawning grounds? What are some other advantages and disadvantages of hydroelectric dams? Can you provide specific examples of dams that have either solved or created problems?

**Module 6 – Climate Change**

Discussion Topic: US Climate Policy

Climate change policy is going to remain a hot topic for many years to come. If you were an advisor to President Obama, how would you advise him to proceed with climate change policy? Should the US enter agreements with other nations to limit carbon dioxide emissions? How should restrictions to emissions be accomplished? Should cuts be mandatory or voluntary?

**Module 7 – Earth’s Resources**

Discussion Topic: Energy Consumption

Assuming a global impact, who is responsible for the manner in which energy is consumed? (Producer, consumer or community where it’s consumed?) At what point if ever do the rights of individuals need to be trumped by the rights of a community?

Again another way of asking the question is "Do we really live in a global community?" If you believe we don't or it is irrelevant state that and support your arguments with examples.