**WEAX 201**

**Module 2 Make it Real Discussion Topics**

Choose ONE of the topics below. ***In 500 words or less,*** develop *a structured and engaging* initial post that covers all discussion points as outlined for that topic.

1. The **Regional Temperature Variations** section in chapter 3 of the textbook discusses how the greatest factor controlling the temperature of a region is the amount of solar radiation reaching the surface, which is determined by two factors: the length of daylight hours, and the intensity of incoming solar radiation. Both of these factors are a function of ***latitude***, and thus, the latitude of a location is a very important control of its temperature.  The textbook also mentions ***land/water distribution, ocean currents*,** and ***elevation*** as factors controlling regional temperature.

Chose a location where you have lived or that has interest or meaning to you. Construct **an engaging** **3-paragraph initial post** that applies the above four controls of regional temperature in explaining the observed temperature variation at this location. The paragraphs should address the following points:

* **Paragraph 1:**  For your chosen location, describe:
1. Its geographic location and give the approximate latitude (a graphic will add greatly to the discussion here).
2. How the temperature changes over the course of the year (including a graph of the location’s average temperature versus month of the year with your description is recommended), by citing climate data from a reputable internet weather source (potential resources are listed in the **Course Specific Instructions** section of the course)
* **Paragraph 2:** Discuss, aside from the latitude of this location, which control you think is the *next* most important in controlling the temperature of the chosen location, and which **control is the *least* important.  Support your argument.**
* **Paragraph 3:**  Give us “your take” on the importance and impacts, in your own life or society in general, of understanding the causes of regional temperature variation, by providing personal points of view or related experiences.
1. After reviewing the discussion of the atmospheric greenhouse effect in chapter 2 of the textbook, and the Module 2 Mini-Lesson **Investigating the Atmospheric Greenhouse Effect**, construct **an engaging** **3-paragraph initial post**. The paragraphs should address the following points:
* **Paragraph 1:** Briefly summarize the atmospheric greenhouse effect. Include the “players” (gases) and type of radiation involved, and the effects on atmospheric temperature.
* **Paragraph 2:**Discuss the dual-role of water in the atmospheric greenhouse effect.
* **Paragraph 3:** Give us “your take” on the relevance and importance of the atmospheric greenhouse effect and its effects on Earth’s climate.
1. Construct **an engaging** **3-paragraph initial post** focused on **one** of the main processes important atmospheric energy transfer – ***conduction, convection, radiation,*** or ***latent heat of water***. The paragraphs should address the following points:
* **Paragraph 1:** Explain conceptually how this process works to transfer energy from one object to another, or from one place to another (graphics will add greatly to the discussion here).
* **Paragraph 2:** Provide specific examples of where and how this process takes place in Earth’s atmosphere.
* **Paragraph 3:** You have two options for this paragraph:
1. Discuss one or more potential impacts of this atmospheric energy transfer process to ground and/or air operations at an airfield.
2. Give us “your take” on the relevance and importance of this atmospheric energy transfer process in any aspect your life, personal or professional, by providing personal points of view or related experiences.