

## GPH 111 Short Answer Sample Assignment

Please answer the question below in short-answer format.

- Respond to the question using two to three well-constructed paragraphs containing specific details and examples that support your understanding of the concepts.
- Carefully read each part of the question to ensure that each component is answered with the appropriate depth and detail.
- Your answers should be free of spelling and grammar errors.
- When using source material, you must properly document it using APA format (see Announcements for details on APA).
- **Writing Prompt: Describe the composition of the atmosphere.**

Writing – First sentence of paragraph is a topic sentence which introduces the topic overall.

One of the defining differences of the Earth from other planets in our solar system is the presence of a distinctive atmosphere. Typically referenced as air, the atmosphere is a mixture of gases which helps to provide the oxygen needed for survival and also acts as an insulator to make the planet livable (Hess, 2011). In order to fully understand what the atmosphere is

Writing – Cite Sources: In-text source citation

composed of, a look at gases and particulates are needed. The composition of the atmosphere can be grouped into three categories; permanent gases, variable gases, and particulates.

Writing – New paragraphs start with a transition to the new idea

Knowledge – Explanation of topic

Beginning with the gases, the atmosphere is composing of both permanent and variable gases. A permanent gas is one that always exists in atmosphere, makes up the largest percentages of the atmosphere, and includes both oxygen and nitrogen (Hess, 2011). Looking at each in turn, nitrogen makes up more than 78% of the atmosphere and oxygen makes up roughly 21%. The other gases are the variable gases are those that are sparse, but highly variable, which includes water vapor, carbon dioxide, and ozone (Hess, 2011). First, water vapor makes up between zero and four percent of the atmosphere and is an important gas for weather and climate as well as heating and cooling of the Earth. Next, ozone makes up a very small portion of the atmosphere, but is found between 15 and 48 kilometers above the Earth's surface and plays a pivotal part in filtering out the ultraviolet rays of the sun. Finally, carbon dioxide makes up about 0.039% of the atmosphere and has been linked to the warming of the lower atmosphere (Hess, 2011).

Writing – New paragraphs start with a transition to the new idea

Knowledge – Continued Explanation of topic

Outside of the gases, particulates are another part of the compositions of the atmosphere. Particulates are nongaseous particles which include liquid water, ice, and dust which at some point can make their way to the ground because of their weight (Hess, 2011). These particles in the atmosphere are important to weather formation (e.g. water and ice) as well as decreasing

Analysis – Summary of discussion and application beyond assignment material

solar energy (Hess, 2011). In summary, the composition of the atmosphere consists of permanent gases, variable gases, and particulates. Each of these help to make the Earth's atmosphere unique when compared to other celestial bodies. With this knowledge of the composition of the atmosphere, it is possible for individuals to be more conscious of what is constantly around them. Also, knowledge of this topic can provide useful insight into how humans are impacting the Earth in regards to the use of fossil fuels.

Writing – Reference List

### **Reference List**

Hess, D. (2011). McKnight's Physical Geography: A Landscape Appreciation (Tenth ed.). Boston, MA: Pearson Education.