**Lecture-Level learning goals for *Fragile System – Part I***

**UBC EOSC 114, *The Catastrophic Earth-Natural Disasters***

Day 1

* List the main topic modules we will cover.
* Recognize (most of) the instructors.
* Use the i>Clicker system.
* Access content information from the online course notes and from the textbook.
* Use the course web page to anticipate learning goals, reading assignments, warm-up assessments, exams, and other scheduled events.
* Know where to go for help (web FAQs, Vista Discussion Board, ECAC).
* Actively participate with your classmates to enhance your learning

Day 2

* Explain what density is, & how it relates to stratification.
* Explain why disaster scales are based on the Order-of-Magnitude concept.
* Interpret graphs with logarithmic scales.
* Relate natural-disaster intensity to frequency & return period.
* Describe how concentration or dilution of energy relates to disasters.
* Get the disaster info you need from reliable sources.

Day 3

* List the 1st and 2nd most common elements in the earth, ocean, and atmosphere.
* Describe how viscosity and compressibility relate to the phase of matter.
* Be able to diagnose the type of strain by the way a material deforms.
* Explain why gravity is a force.
* List the 5 types of energy, and describe what causes them to vary.

Day 4

* Explain (with examples) how energy conservation applies to natural disasters.
* Describe relationships between force, pressure, stress, strain, energy, and power.
* Describe population growth and explain why it is important for natural disasters.
* Explain how Earth’s carrying capacity and overpopulation are related to the fate of the human race, and anticipate your role in it.

Day 5 - Explore Your Background.

* Know more about aspects of the Carl Wieman Science Education Initiative (CWSEI) and active learning.
* Use feedback about warm-up exercises to focus YOUR learning.
* Re‐do the background exercise perfectly.
* Become more interested in current, global natural hazards.