Lecture-Level learning goals for *Landslides*
UBC EOSC 114, *The Catastrophic Earth-Natural Disasters*

Day 1
- Explain how the socio-economic impact of landslides depends on the type and characteristics of the landslide hazard.
- Define the chief components of landslide risk.
- Distinguish the different modes of failure (falls, flows, slides, topples, and spreads) and how they are influenced by geology.
- Compare and contrast landslide causes and how they differ from landslide triggers.

Day 2
- Compare and contrast the role of causes and triggers in the occurrence of landslides.
- Assess the balance between the strength of the slope and the destabilizing forces acting on it (Factor of Safety)
- List and describe how groundwater affects shear stress and shear strength, and how it contributes towards the increased likelihood of a landslide.
- Outline the different factors, both natural and human, that contributed to the Vaiont landslide disaster.

Day 3
- Compare and contrast several of the key triggers of landslides and how they affect the force balance equation (i.e. Factor of Safety)
- Differentiate the mechanism by which liquefaction landslides develop in loose sands and sensitive clays.
- Explain why British Columbia has the highest frequency of landslides in Canada and what the future holds as the population expands into mountainous regions.
- List the different human activities that contribute to increased landslide hazards.

Day 4
- Relate the type of landslide damage expected as a function of its velocity.
- Identify tell-tale signs of an unstable slope.
- Compare and contrast avoidance, prevention, and protection strategies for dealing with landslide hazards.
- List the mitigation techniques commonly used for avoidance, prevention and protection strategies.