**ES473 Journal Reading Review Questions – Applications of Lidar Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Glenn et al., 2006, Analysis of LiDAR-derived topographic information for characterizing and differentiating landdlide morphology and activity: Geomorphology, v. 73, p. 131-148.

Instructions: Read the journal article and answer the following review questions. Provide sketches or cut-and-paste images where required.

1. What is the significance of landslides with respect to human populations throughout the world?
2. What does the acronym “DEM” stand for? What are the limits of scaling and resolution of digital models with respect to analyzing landslides?
3. What types of ground surface resolution are offered by LiDAR techniques?
4. List the topographic characteristics of landslides that are commonly used for quantitative analysis.
5. Describe the location and general geology of the case study area discussed in this publication.
   1. What type of landslide motion is involved?
   2. What is the area covered by the landslide complex?
   3. Are all portions of the landslide complex the same age?
6. Summarize five main points describing the Lidar Methodology used in this study.
7. What is the difference between the topographic measurements of surface roughness vs. slope angle?
8. Examine the hillshade model presented Figure 5. Describe three key observations of the landslide terrain that are characteristic of massive slope failure.
9. Examine the landslide map in Figure 11. List and describe the three main map unit types identified by the authors, as derived from their analysis of roughness and slope.
10. Summarize four key conclusions to the study.