

## **GEOGRAPHY 485: Remote Sensing I**

### **Fall 2021**

---

### **Quiz #3 - 25 points**

Please answer the following questions in complete sentences, unless stated otherwise. You are welcome to refer to course materials and other resources while working on answers, but all questions should be answered using your own words and following the UO academic guidelines regarding plagiarism and academic conduct. The Canvas 'simcheck' automatic review site will be used on all submissions.

1. Describe three major differences between passive optical imaging and active radar imaging [5 points].
2. What is a polarized radiowave? Which materials or objects tend to depolarize radiowaves and why? [5 points]
3. Describe the differences between a digital surface model (DSM), a digital terrain model (DTM) and a canopy height model (CHM)? Which remote sensing instrument is best suited to producing canopy height models and why? [5 points]
4. Explain three sources of uncertainty in an airborne LiDAR survey? [5 points]
5. Instead of traditional NASA satellite programs which launch one satellite at a time, Planet Labs launch and operate a constellation of small satellites to image the Earth. Explain two advantages and two disadvantages of this approach. [5 points]