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GST 105 – Mid Term

This midterm exam covers the material for Units 1-3.

1. What is remote sensing?

2. What are 4 common wavelengths that have been discussed? Name them and provide the wavelength ranges in nanometers.

3. Name and describe 4 kinds of remote imaging sensors.

4. Name and describe 2 current or up-and-coming remote sensing technologies.

5. What are 5 common uses of remotely sensed imagery?

6. What is digital image processing and how is it used with remotely sensed imagery?

7. What range of wavelengths is very beneficial to vegetation analysis using remotely sensed imagery? Why is this the case?

8. What is the difference between an active and passive remote sensor?

9. What is the benefit of hyperspectral sensors over other multispectral sensors?

10. What are the primary components of an image?

11. Explain why different wavelengths are assigned to different color planes on a color display? What is the benefit of being able to do this with respect to remotely sensed image data?

12. What are some important characteristics to keep in mind when ordering or tasking to have remotely sensed imagery collected?

    a. Aerial

    b. Satellite

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13. What is the benefit of using band ratios with remotely sensed imagery?
14. What is the benefit of applying the NDVI band ratio? What kind of imagery is required?

15. Describe the Tasseled Cap transformation and why it would be beneficial to use in land cover projects. What kind of imagery can the tasseled cap transformation be used?

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