Natural Resource Applications of Remote Sensing

	- Temporal animations
4	Exploring spectral regions using ArcGIS Pro - Visible spectral regions - Near-Infrared spectral region - SWIR spectral region - Thermal spectral region - Hyperspectral remote sensing - Analysis of spectral responses
5	Georeferencing with ArcGISPro - Linear georeferencing model - ArcGISPro georeferencing toolbar - Co-registration of historic imagery - Georeferencing photographs - Artificial change due to co-registration error
6	Supervised classification - Maximum likelihood classifier - Supervised classification in ArcGIS - Image segmentation - Point-based classification accuracy assessment
7	Unsupervised classification - Spectral clustering - Spectral clustering in ArcGIS - Using ArcGISto fix mixed spectral classes - Raster-based classification accuracy assessment
8	AVHRR sensor applications - The Advanced Very High Resolution Radiometer (AVHRR) - Processing GIMMS-NDVI raster data - 20-year change in peak summer NDVI by ecoregion - Working with 1-km AVHRR Alaska products
9	MODIS sensor applications - MODIS land products - Assessing MODIS NDVI reliability - Assessing eMODIS NDVI reliability - Working with 250-m NDVI tiles in Alaska - 500-m snow product in Alaska

- METHOD(S) [30 points]:
 - What did you do with your data in order to achieve your project goal (image processing method (or chain) or algorithm; use flowchart or graphics to show your data processing flow; also explain the data processing steps)
- RESULT(s) [30 points]:
 - o Results (use figures and tables; interpret and explain the results)
 - o Provide quantitative or qualitative evaluation of your results
 - o If your results are not what you hoped for in beginning provide justification
 - Discuss any data or method limitations
- Closing statement [5 points]: Conclusion/ final remark on the project (future direction)

Explanation of NB/I/W Grades: This course adheres to the UAF guidelines regarding the granting of NB Grades. The NB grade is for use only in situations in which the instructor has No Basis upon which to assign a grade. In general, the NB grade will not be granted.

Your instructor follows the University of Alaska Fairbanks Incomplete Grade Policy:

474-5470, speak@uaf.edu 8th floor).

-474-5314, Gruening

COVID-19: Students should keep up-to-to COVID-19 by regularly checking this

website: https://sites.google.com/alaska.edu/coronavirus/uaf/uaf-students. Further, students are expected to adhere to the unive actions if they do not comply.

UAF embraces and grows a culture of respect, diversity, inclusion, and caring. Students at this university are protected against sexual harassment and discrimination (Title IX). Faculty members are designated as responsible employees which means they are required to report sexual misconduct. Graduate teaching assistants do not share the same reporting obligations. For more information on your rights as a student and the resources available to you to resolve problems, please go to the following site: https://catalog.uaf.edu/academics-regulations/students-rights-responsibilities/.

Student Academic Support:

Speaking Center (907-474-5470,