GIS at UAF

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Our Students

Life Sciences
• Wildlife, Fisheries, Plant and Animal Science, Forestry, Marine Sciences, Biology

Physical Sciences
• Geology, Geophysics, Soils, Climatology, Geography, Physical Oceanography

Social Sciences
• Anthropology, Business, Archeology, Economics
Teaching Labs

ONEILL 359
- ArcGIS (15 computers)

ONEILL 330
- ArcGIS, ERDAS, ENVI (10 computers)

WERB 4
- ArcGIS, ERDAS, ENVI (12 computers)
B. S. Geography

- Landscape Analysis and Climate Change Studies
- Geographic Information Science
Landscape Analysis

- Foundation Courses (Physical Geography, GIS)
- Processes (Weather & Climate, Ecology, Geomorphology)
- Methods (Cartography, Map Analysis, GIS Analysis, GIS & GPS Applications)
- Senior Capstone Courses
Geographic Information Science

- Foundation Courses (Physical Geography, GIS)
- GIS Breadth (Computer Programming, Statistics, Landscape Analysis, GIS Analysis)
- Remote Sensing (Natural Resources Applications, Geosciences, Cryosphere, SAR, Visible and NIR)
- Geographic Information (GIS Geo. Engineering, Cartography, GPS & GIS Applications, GIS Programming, Google Earth Programming)
Introduction to GIS

- [http://nrm.salrm.uaf.edu/~dverbyla/nrm338](http://nrm.salrm.uaf.edu/~dverbyla/nrm338)
- Map projection & Coordinate Systems
- GPS
- Coverages, shapefiles, geodatabases
- DRG rasters
- DEM rasters
- Raster imagery
- Editing shapefiles & geodatabases
- Classification & Accuracy Assessment
- Feature Analysis
- Map Layout
Geos 458/658
Geoscience Applications

- Excel with VB Macros, Excel to ArcGIS
- Map Projection
- Intro to ArcGIS
- GPS with Garmins
- GPS with Trimbles
- Arcpad
- ArcScene
- Google Earth
- Map Composition and Labeling
- Student Projects
GIS Analysis

http://nrm.salrm.uaf.edu/~dverbyla/nrm435

- ArcGIS Model Builder
- Point Analysis tools
- Line Analysis tools
- Dynamic Segmentation
- Address Geocoding
- Network Analysis
- Polygon Analysis
- Overlap & Adjacency Analysis
- Movement & Home Range

- Raster Analysis
- Optimal Paths
- LIDAR Analysis
- Hydrologic Analysis
- 3D Analysis & Visualization
GIS Programming

http://nrm.salrm.uaf.edu/~dverbyla/nrm638

- ArcGIS Model Builder
- ArcGIS Command Window
- Python Geoprocessing
- Script tools
- VBA / ArcObjects
Neography Using Google Earth

http://earth.images.alaska.edu/geog493/

- KML Points
- KML Ballons, Paths
- KML Polygons, Containers
- KML Views, Multigeometry, Styles
- KML 3D Models
- Sketchups, Ground Overlays, Photo Overlays
- KML Time, Network Links
Remote Sensing Courses

- NRM 369 GIS and Remote Sensing for Natural Resources
- Geos 422 Geoscience Applications
- NRM 641 Remote Sensing Applications
- Geos 622 Digital Image Processing
- Geos 652 Remote Sensing in Visible/NIR
- Geos 657 Microwave Remote Sensing
- Geos 639 SAR Interferometry
- Geos 676 Remote Sensing Volcanic Eruptions
Research Centers
Welcome to GINA, the University of Alaska's framework for organizing and sharing geographic data and technology among Alaska, the arctic and world communities.

Image of the Week

Augustine Volcano Eruption - Jan. 13, 2006 1:16pm AKST
Web-based Mapping of Reindeer

Reindeer Refuge and WWW maps

Bar chart showing the number of reindeer in different herds with projected and current counts.

- Gray: #33 - 0.930
- Helley: #39 - 0.880
- Henry: #40 - 0.870
- Kameela: #88 - 0.935
Other Opportunities

• Free ESRI Virtual Campus Courses

• Pete Hickman’s ESRI ArcGIS Desktop II: Tools and Functionality

• Pete Hickman’s ArcGIS Desktop III: Workflows and Analysis courses