

GIS course--John Middendorf—Lesson 1

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1. Presentation:

--What is GIS?, Types of Data, Projections, Datums

2. Exercise1: Lat/Lon Practice.

Link to <http://tinyurl.com/2k9o8z>
https://courseware.e-education.psu.edu/courses/geog482/graphics/coord_practice_geo_v22.swf

3. Exercise2: UTM practice.

Link to <http://tinyurl.com/344v52>
https://courseware.e-education.psu.edu/courses/geog482/graphics/coord_practice_utm_v06.swf

4. Exercise3: Projections

- Go to <http://geonames.usgs.gov> Domestic Names>Search GNIS Find Coordinates of Pagosa Springs, CO. Write them down.
- Experiment with Projections: <http://projections.mgis.psu.edu/>

5. GIS--at last!

- Download data from National Atlas: <http://www.nationalatlas.gov/>
--go to Mapping Professionals>Raw Data>Boundaries>State Boundaries
--click on [statesp020.tar.gz](#)
- Unzip DataFolder onto desktop
- Open uDig: File>New>Map
- Layer>Add>Files>"States020.shp"
- Experiment with Projections and Info Button.

Homework:

- Download and Read uDig documentation: <http://udig.refrations.net>
- Download data from CDOT: <http://www.dot.state.co.us/>
--go to "Stats and Data">"Geographic Data", download Archuleta County Dataset.
--load CDOT data and explore.

Next weeks lesson we will be creating thematic maps using uDig.

LINKS TO EXPLORE:

Coordinate conversions:

<http://www.ngs.noaa.gov/TOOLS/>

Lat/Long Decimal to Degrees/Minutes/Seconds converter:

<http://www.fcc.gov/mb/audio/bickel/DDDMSS-decimal.html>

OpenSource GIS Software:

<http://udig.refrations.net>

What is GIS:

http://erg.usgs.gov/isb/pubs/gis_poster/

Projections:

<http://erg.usgs.gov/isb/pubs/MapProjections/projections.html>

State Plane Information:

http://www.warnercnr.colostate.edu/class_info/nr502/lg3/datums_coordinates/spcs.html

PLSS

http://geology.isu.edu/geostac/Field_Exercise/topomaps/plss.htm

GIS coursework from Penn State:

<http://www.lynxgeos.com/penn/index.htm>

DataSources:

<http://www.lynxgeos.com/penn/GEOG482/Proj3GEO482c.htm>