NREM 446/546  
Week 4, 2013

Reading assignment:  
www.colorado.edu/geography/gcraft/notes/mapproj/mapproj_f.html  
www.progonos.com/furuti/MapProj/Dither/CartProp/ShapePres/shapePres.html#Conformal

Also peruse… www.csiss.org/map-projections/index.html

Material presented this week contributes to the accomplishment of the following course goal:

| Goal 1: Demonstrate a basic understanding of the theory behind GPS & the reasons for its use |
| Goal 2: Plan and conduct a GPS data acquisition session |

Information obtained this week will help you further understand how map projections are central to accurately representing spatial data in a graphic manner.

After studying class notes and reading assignments, participating in class discussions, and conducting lab. 4, you should be able to:

- Sketch an approximation of the graticules associated with a particular projection, by knowing whether the projection is cylindrical, conical, or planar, and where on the earth’s surface the projection is tangent or secant.
- Describe the following terms:
  - Map projection
  - Planar, Cylindrical, Conical Projection
  - Great Circle
  - Rhumb Line (loxodromic curve)
- Be able to describe the characteristics of the following projections:
  - Lambert conformal conic
  - Mercator
  - Polyconic
  - Transverse Mercator
  - Polar Gnomonic
- Explain the following terms related to map projections:
  - Conformal
  - Azimuthal
  - Equi-area
  - Equi-distant
- Develop a data dictionary for use in collecting GPS data

End of Exam I Material