Reading assignment:
“Assorted Spatial Analyst Functions” and “Surface Interpolation Methods”
GIS Fundamentals, Ch2 (pp. 25-62)
Material presented this week contributes to the accomplishment of the following course goal:

<table>
<thead>
<tr>
<th>Goal 5  Use GIS to conduct basic spatial data analysis</th>
</tr>
</thead>
</table>

*Information obtained this week will help you begin to understand how GIS can be used to conduct basic analysis of spatial data beyond simply making maps.*

After studying class notes and reading assignments, participating in class discussions, and conducting labs 9, you should be able to:

- Describe the steps necessary in ArcCatalog to create a new shapefile
- Use ArcCatalog to create a new shapefile
- Use ArcMap digitizing tools to digitize polygons from an existing orthophoto or scanned map
- Calculate areas for a polygon theme using the calculate geometry tool
- Discuss the differences between vector and raster GIS
- Discuss what is meant by, and give an example of continuous and discrete data
- Discuss the kinds of problems for which raster GIS is well suited
- Describe what is meant by a surface
- Describe some of the common tools available in ArcGIS for creating surfaces, and the expected results from spline and IDW tools.