

## Landscape Interpretation and Visualization Using A GIS Geomorphology: GLG 2041

---

### Instructor Notes:

1. To use this assignment as designed with paper-based maps you will need to print out the included DRG files as paper maps. I routinely do this with a high-quality plotter with little loss of detail and certainly sufficient for these exercises. Students use rulers and string to calculate spatial coordinates, river gradients, and to characterize landscape-scale relationships.
2. Students are required to purchase "Process Geomorphology" by Ritter (2006) and I provide excerpts from "Interpretation of Topographic Maps" by Miller and Westerback (1988). They use these texts as they work through both the analog and digital assignments.
3. I really try to push the students to be aware of how they are 'thinking' about the process they are working through; how do they visualize, how do they construct mental models, and how are these skills transferred to a physical sketch or diagram? I also urge them to consider the relationship between process and form while they struggle with contextualizing topographic characteristics.
4. I find it easier to explain GIS concepts on the board or individually rather than within the handout so there is limited 'help' embedded in the text. I spend a lot of time explaining the difference between raster and vector-based data format, briefly describe projection and tie it to earlier conversations about coordinate systems, and finish with an overview of the power behind overlay analyses within a GIS.