

**GEOL 1901: Independent Study (4 credits).** The independent study for the GIS/Remote Sensing Certificate is a major project intended to allow students to reinforce and polish their GIS and/or remote sensing skills. Students may either generate their own projects in consultation with one or more faculty members, or they can adopt a project proposed by a faculty member. Each project should attempt to answer a particular question, and these projects should involve the integration of 3 to 5 GIS map layers or at least 2 different remote sensing datasets. After defining the scope, students should plan on spending at least five hours each week working on the project and having meetings every 2 weeks with the sponsoring faculty member. The purpose of these meetings is to ensure that adequate progress is being made and that the final product will meet the needs of the project sponsor.

Each student should hand in a CD-ROM or DVD containing the following:

- A PowerPoint presentation and 7-15 page paper that describes the goals of the project, the sources of data, the nature of the data analysis or manipulations, the major features and significance of the final images (maps, satellite images, etc.), and a summary of the major results or conclusions of your independent study.
- Copies of the final GIS databases and/or RS images used to create your project; this is to allow someone else to later build on or modify what you did (if future needs make it necessary).
- Copies of all electronic files (for example the .mxd files in ArcGIS) that you used to generate the final maps. Again, this helps someone else pick up where you left off.
- A text file (.txt) containing all the metadata necessary to allow someone to reproduce your project. Once again, the goal is to make it easy for the end-user to easily modify your work if the need arises.

Make sure these files are clearly named and well organized in folders on the CD-ROM or DVD. Many students also include a print-out of their PowerPoint in a binder.

Please see Bill Harbert or Mike Ramsey to get your project approved. To register for this class, you must get a faculty member to sponsor your project and to e-mail permission to register for four credits of GEOL 1901 to your advisor. Your advisor will send you a permission number allowing you to register.

Please see Charlie Jones or Mark Collins to see examples of previous projects if needed.

Finally, by the last week of the semester (before finals week), turn in a copy of your work to both your main faculty sponsor and either Bill Harbert (for projects that mainly involve GIS) or Mike Ramsey (for projects that mainly involve remote sensing). Drs. Harbert or Ramsey will assign final grades in consultation with your faculty sponsor.