Project Deliverables:

* Topic proposal - describes overall plan for project
  + One page, single or double spaced, plus references list
  + Include topic description, example references to be used, overall approach
  + Must be *groundwater* focused
  + **DUE DATE: January 29** (25 points)
* Written paper - synthesizes available information or generates new knowledge
  + Approximately 10 – 15 pages in length, double spaced
  + Format may be in the style of a “review article” or “consulting report”
  + Appendix with additional supporting documents, such as maps or calculations
  + Bibliography with proper citations
  + **DUE DATE: Draft version, March 28** (50 points)
  + **DUE DATE: Revised version, May \_\_\_\_** (125 points)
* Oral report - shares findings with group
  + Powerpoint presentation, 15 minutes total, with at least 3 minutes for questions
  + **DUE DATE: Week of April 22nd – 26th** (50 points)

Examples of Previous Topics:

1. Case studies on hydrogeology, development, remediation, or management of a particular aquifer or groundwater system.
2. Overview of groundwater resources or issues relevant to a particular country, state, or region.
3. Use of modeling software to address a particular groundwater question (some possibilities: MODFLOW, Interactive Groundwater, or HYDRUS).
4. Background, geography, politics, and remediation/protection programs associated with the following groundwater problems: a) salinization or salt water intrusion; b) subsidence due to pumping; c) depletion due to high demand; or d) arsenic in water.
5. Groundwater quantity protection strategies, such as artificial recharge, aquifer reinjection wells, or regulations on extraction.
6. Groundwater quality protection and remediation strategies, such as control of non-point source pollution (e.g. nitrates, agricultural chemicals) or remediation technologies (e.g. pump and treat, soil vapor extraction, natural reactive barriers).
7. Review of groundwater regulations - federal, state, or basin specific

Other Paper Writing Issues

If you have trouble writing, consider consulting the University Writing Center:

<http://writingcenter.tamu.edu>

Please remember, that the words, ideas, and graphics in your project should be your own. I expect you to properly cite your sources when they are not. To help prevent this, you are required to read the library tutorial entitled “Academic Integrity and Plagiarism” <http://library.tamu.edu/help/help-yourself/using-materials-services/online-tutorials/library-tutorials/page4/>. **Proof of completion of the associated quiz will be required before I grade your project proposal.**If you are confused about proper citation procedures, you may also wish to read the library’s tutorial entitled “Citing Your Sources.” *Plagiarism on any part of the project, including the proposal and the draft, may result in a zero for the entire project.* You must get my approval before writing a paper that overlaps with an assignment from another class. Submission of the same paper or a similar paper to another class, without instructor approval, is still plagiarism. Picking a topic related to your thesis is acceptable, but similarly, you should clear it with your advisor before reusing your text (e.g., in your thesis literature review).

**Draft Evaluation Criteria**

**\_\_\_\_ Name and title on draft (10)**

**\_\_\_\_ Majority, >60%, of writing completed (20)**

**\_\_\_\_ At least five references cited (10)**

**\_\_\_\_ At least two graphics shown (10)**

**\_\_\_\_ Total Score (50)**

**Presentation Evaluation Criteria**

**\_\_\_\_ Content (20)**

**\_\_\_\_ Style (10)**

**\_\_\_\_ Graphics (10)**

**\_\_\_\_ Question Response (5)**

**\_\_\_\_ Time (5)**

**\_\_\_\_ Total Score (50)**

**Paper Evaluation Criteria**

**What makes an acceptable paper?**

* Appropriate topic
* Sufficient organization and thought process evident
* Sufficient writing quality (understandable)
* At least five references from literature
* Supporting graphics
* Central thesis and/or objective stated

**What makes an exceptional paper?**

* Creative topic
* Clear organization and thought process easily followed
* High writing quality (enjoyable)
* At least fifteen references from literature
* Attractive graphics
* Central thesis well supported and/or objective well met

**What makes a failing paper?**

Plagiarism, no exceptions or excuses