

**ME571/GEO589—Special topics**  
**Exploration, mining and environmental geochemistry of uranium deposits**  
**Cramer 123**

**FINAL EXAM**

You can work in groups, but everyone must write their own answers. If anyone copies word for word from someone else, both students will receive a 0. If you copy from a published or internet source, use quotes and cite the references. Keep answers short, but complete.

Due May 6, 2016

- 1) What does a scintillometer measure? What do the measurements mean and how can you use this instrument in uranium exploration? 10%
- 2) Why are limestones typically poor host rocks for uranium mineralization? What is different about the Todilto Limestone uranium deposits? 15%
- 3) What criteria are needed to determine the depositional environment of a sedimentary rock? 10%
- 4) What are some of the political, economic, technical, and social factors a company must evaluate in order to decide to continue to explore and develop a uranium deposit in any area? 15%
- 5) What environmental considerations must be taken into account in order to mine for uranium? 10%
- 6) Why is safety so important? Describe one of the safety presentations given in class (not your own). 10%
- 7) Write a press release for one of the deposits we visited. Include who, what, where, when and why. See [http://en.wikipedia.org/wiki/Press\\_release](http://en.wikipedia.org/wiki/Press_release) 10%
- 8) Discuss one of the students' oral project presentations in class by subject, information given, strong points, weak points and delivery. How would you do it better? 10%
- 9) Describe in situ recovery (ISR) of uranium. Why or why not are the primary tabular uranium deposits in the Grants district suitable for ISR? 10%