ABOUT THE PROJECT AND PRESENTATION

MATH 800 – COMMUTATIVE ALGEBRA – FALL 2013

The written project should be approximately 6-10 pages and will be graded on clarity, presentation, and language; and mathematical content and correctness. It is due on **the last day of class**. **Cite your sources** and **don't copy**. They will be posted on the course website.

The project presentation will be graded on clarity and interest, communication of core ideas, and mathematical correctness. The presentation should be 20 or 25 minutes with a few minutes of questions following. You may use any medium I can readily provide. The deadline is **the last day of class**, but note that I can't fit everyone into the last day.

1. TOPIC

Please tell me your project topic on or before **November 1**.

Here is a non-exhaustive list of places to look for a topic

- Take one of the appendices or other topics that we aren't covering from the textbook (there are many quite diverse appendices). Present the material to the class. In the written project don't just say what Rowen says but either add some additional context, or solve some relevant exercises, or otherwise extend the textbook.
- Take a paper related to commutative algebra (and perhaps also related to your research area). Tell us what the paper is about. In the written project again you need to contribute your own content – try following a motivating example through all the calculations of the paper, or expand some of the terse points in the paper's proofs, or if it is the sort of technical paper where the reader can lose the forest for the trees give an overview of the arguments.
- Discuss a major conjecture related to commutative algebra (and perhaps alsso related to your research area). Discuss why the conjecture is interesting, why people believe it to be true, perhaps with some motivating examples. What are some major lines of attack that have been tried on the conjecture.
- Discuss a major named theorem (that we haven't covered) in commutative algebra. Why is it important? Give an overview of the proof – how do the parts fit together, what are the key tools and results?