Syllabus for Arts and Sciences 101, S '04
High school mathematics from a more advanced point of view seminar

Instructors: Drs. Patrick Jones, Carl Lee, and Steve Seif

January 21, 2004

Time/Place: 3-3:50 pm, Thursday,311 CB
Office hours: 10-10:50, Tuesdays; 12:30 - 1:30, Thursdays, 755 POT
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The seminar is a one-credit hour pass/fail course. To pass, attend class, participate as you so choose, and make at least two five minute presentations. (You are welcome to make more than two presentations.)

Upon completion of the course, a student will have:

1. Examined carefully mathematics in a standard high school from a mathematically-mature perspective.

2. Analyzed how general and abstract mathematics of the mathematics major can support and guide the teacher of high school mathematics.

3. Discussed the proper role of demonstrations, proof, definitions, examples, counterexamples and logical quantifiers in the presentation of high school mathematics.

4. Catalogued the most common mathematics errors and misconceptions of high school students and discussed means to guide students to better practices.

5. Presented high school mathematics topics in a lively, interesting and mathematically rigorous way.

6. Critiqued presentations of peers.