Syllabus for Math 2710 Transition to advanced mathematics
Section 002, Spring 2010

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Course description: A course designed to prepare the serious student for the more theoretical upper division mathematics courses. It includes basic concepts, principles and techniques of mathematical proof. It will also cover concepts commonly assumed in some of the higher mathematics courses; these concepts include sets, set operations, indexed family of sets, equivalence relations and partitions, functions, one-to-one functions, onto functions, induced set functions,...

Textbook: Transition to Advanced Math (6th Ed.) by Smith, Eggen, St. Andre, Brooks/Cole (ISBN: 0534399002)

Exams: There will be two midterms. Their tentative dates are

- Exam 1: Monday, February 15
- Exam 2: Monday, April 5

The final exam will be on Monday, May 3, 1:00 – 3:00 PM and will be comprehensive. If you cannot make it at one of these dates, let me know by January 27. Makeup exams will only be given if you missed the exam due to an emergency. In this case proper documentation is required (for example a doctors note if you were ill).

Homework: The main goal of this course is that you learn the language of mathematics and how to express your mathematical thoughts in that language. Therefore the written homework is the most important part of the course. I will assign practice problems and homework to turn in. When writing your homework you should consider the following:

- A proof is an essay. Write full sentences.
- Write double spaced, and leave some room after each problem for comments.
- Write neatly.

Getting a proof right usually takes a few attempts, so be prepared to go through a few versions until you have a proof that you can turn in.

If you did not get all points on a problem of your homework, you can rewrite that problem and turn it in in the next class period together with your first solution. I will grade these problems, and your final score will be the average of your first and your second version.

We will spend some time going over the homework together. Always be prepared to present your solution on the board.

Before each class, you should read ahead in the book. After each class make sure to review the notions we covered. If we proved a statement in class, take a blank sheet of paper, write the statement on it, and try to prove it using your own words.

Quizzes: There will be a few short quizzes.

Grading: You will obtain 4 grades, which will count as follows towards your final grade: 30% homework and quizzes, 20% midterm 1, 20% midterm 2, 30% the final. Your scores will be available via HuskyCT.