MATH 2300 - TRANSITION TO ADVANCED MATHEMATICS
FALL 2009

Instructor: Dr. Chal Benson,

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Meeting times: Monday and Wednesday 2:00-3:15 p.m. in Austin 320

Office hours: Monday 3:30-6:30, Tuesday 1:30-3:30
(or by appointment).

Course web page: Important material concerning this course will be distributed via the web. The course web page is accessed via the campus *Blackboard* system. You can reach *Blackboard* from the campus web page (http://www.ecu.edu) by clicking the *Bb* icon. You will need to use your ECU email username and password to then login to the system. *Your access to the course web page is, however, contingent upon regular class attendance. Access will be denied to students with 6 or more class absences.*

Optional Text: There is no required text for this course. The following is recommended as supplementary reading:

- Douglas Smith, Maurice Eggen, Richard St. Andre; *A Transition to Advanced Mathematics*, Brooks Cole; 6 edition (June 14, 2005).

Prerequisites: You must have completed Math 2171 (Calculus I) with a grade of at least C.

Important dates:

- Mon Sept 7 - Labor day, no class.
- Tues Sept 8 - State holiday makeup day. **Our class meets at 2 p.m. this Tuesday**
- Tues Oct 6 - Last day to drop a course without receiving a grade.
- Mon Oct 12 - Fall break, no class.
- Weds Nov 25 - Thanksgiving break, no class
- Mon Dec 7 - Last class.
- Fri Dec 11, 2:00-4:30 - Final exam.

Grades:

- class participation - 5%
- homework - 25% (Late homework will not be accepted.)
- 2 tests - 40%
- final exam - 30%

Course Topics:

- Set Theory and Logic
- Basic Number Theory
- Mathematical Induction
- Functions
- Relations
- Cardinality
- The Real Number System

Guidelines for homework assignments: Homework assignments are central to this course. Your participation in the solution of homework problems will be essential for your mastery of our subject. You should expect to devote a substantial amount of out-of-class time each week to this activity. Here are some points to keep in mind regarding homework:

- You are encouraged to discuss homework problems with other class members.
- You must, however, write up all solutions on your own and in your own words. Copying of work without attribution is a form of plagiarism. Do not copy another student's work or allow other students to copy your work.
- Your work will be graded based not only on its correctness but on the quality of its exposition. Endeavor to write clearly and use complete sentences. You should rewrite each problem solution at least once, to clarify your presentation. Do not submit first drafts or rough work. Please write legibly. Leave space between lines and problems for your instructor's comments.
- It is important to begin work on each homework assignment well before its due date. It may require several days of thought to solve a problem and you may need to seek input from other students or your instructor. You will then need time to absorb this input and polish the exposition of your solution.