DEPT: Mathematics  COURSE NUMBER: MAT 299  CREDIT HOURS: 3

I. Title: MAT 299 Mathematical Reasoning

Catalog Description: This course is designed to improve the students understanding of the nature and methods of mathematical proof by means of practice and participation. The content will include mathematical logic, set theory, relations and functions, cardinality, axiomatic structure, techniques of proof, and extensive practice in proof and problem solving. Credit cannot be received for both MAT 299 and MAT 399. Prerequisite: MAT 250 or consent of the instructor.

Grading: Grades will be determined by performance on the following:

   Exam 1
   Exam 2
   Exam 3
   Assignments & Participation

Exams will make up 85% of the course grade and assignments 15%. Final grades will be based on the usual scale: 90-100, A; 80-89, B; 70-79, C; etc. Please note that grading policies are subject to change. You will be given advanced warning of any changes. Also, the assignment and participation grade will not count for those with a failing exam average. In other words, you must have a passing exam average to pass the course.

Daily Assignments & Participation: Because mathematics is better learned through day in and day out activity, you will be given daily assignments. In addition to working problems, these assignments may include writing explanations, writing summaries, working with others inside and outside of class, working in the computer lab, presenting problems at the board, etc.

Each assignment will be graded credit/no credit based on:

1. whether the entire assignment is completed in a legitimate manner;
2. whether you attend class and participate fully on the day the assignment is due;
3. whether you answer correctly all quiz questions given that day.

Although they may not always be collected at this time, assignments are due at the beginning of class. Your assignments and participation grade will be calculated by dividing the number of assignments for which you have received credit by the total number of assignments.

Attendance: Note that since you must attend class in order to receive credit for the assignment due that day, attendance will directly impact your grade. To have a few absences during the semester is to be expected. Although you will not receive homework
credit on these occasions, only a few absences should still result in a homework grade of A. Students who have more than a few absences due to serious circumstances (such as an extended illness) will be dealt with on a case by case basis. In these instances students may be permitted to make up their assignments. Exams may be made up only in the case of an excused absence. If possible, please talk to me or call my office to give me advance notice if you are going to be absent for an exam.

Text: A Transition to Advanced Mathematics (5th ed.) by Smith

Audit Policy: Mid-semester changes to audit will not be approved.

Academic Honesty Policy: Any instance of academic dishonesty, as described by the instructor (in compliance with Board of Regents policy on Academic Integrity - Feb. 1975) will result in zero points for the assignment or a grade "E" for the course.