

Syllabus—Math 327, Spring 2010

Introduction to Mathematical Thinking and Discrete Structures

General Information

Instructor: Matthew Blair

Email: blair@math.unm.edu

Course Website: <http://www.math.unm.edu/~blair/math327.html>

Office: Humanities 443

Office Hours: Wednesday 3-5 pm, and by appointment.

Text: *Discrete Mathematics with Graph Theory*, by Edgar G. Goodaire and Michael M. Parmenter.

Meeting times/location: Monday, Wednesday, Friday at 2 pm in Dane Smith Hall 129.

Course Description

This course will introduce the fundamentals of mathematical proof in the context of discrete structures. Topics will include logic, sets and relations, functions, integers, induction and recursion, counting, permutations, combinations and graphs (time permitting).

Grading Scheme

Homework: 34%, 3 Hour exams: 22 % each exam.

Exams

The largest portion of your total grade will be determined by your performance on three hour exams. The exams will be held in class on **Monday, March 1**; **Wednesday, April 7**; and **Friday, May 7** (Last day of class). Information regarding the content of the midterms will be provided in class as the time approaches. If an exam is missed for a **valid** and **documented** reason (illness, family emergency, active participation in scholarly or athletic activities), then the missing score will be filled in by an average of the other two exam scores.

Homework

A strong commitment to solving problems outside the classroom is crucial for your success in this course. Homework problems will be assigned on a weekly basis, some of which you will hand in for a grade and others that you should work out on your own. Assignments will be posted on the course website. **Late homework will not be accepted**, though the two lowest scores will be dropped at the end of the semester. You may discuss homework problems with others, however each assignment must be written up in your own words.

One of the main goals of the course is to prepare you to write proofs and provide a transition to the strict rigor of upper level math courses. Therefore, your homework will be graded on the clarity and cogency of your mathematical reasoning. Please take care to hand in a neat, legible assignment and staple the pages together in the corner.

You are also expected to read the textbook outside of class. Reading sections in the book before they are discussed in class will help you to get the most out of class time and to stay on top of the material.

Academic Integrity

Academic dishonesty will not be tolerated. Any violations of academic ethics will be investigated thoroughly and penalized accordingly. Academic dishonesty as defined by the student code of conduct includes but is not limited to “dishonesty in quizzes, tests or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.”

In particular, you may discuss homework problems with others, but collected assignments must be written up on your own and in your own words.

Special Arrangements

Accommodations will be made for students with documented disabilities. Students requiring such accommodations must inform the instructor within the first two weeks of the semester.