

Math 512 Probability and Statistics (Spring 2009)

Discrete and continuous probability distributions, measures of variability, estimation, hypothesis testing, regression, correlation, analysis of variance.

Prerequisites: grade of C or better in Math 360 and Math 402.

Instructor: Scott Beslin
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Materials: Computing facility, preferably a graphing calculator (TI-83 or better recommended)

Attendance. Students should attend class regularly and punctually. Students are responsible for being aware of any changes in topics or schedule. Students are responsible for having assignments in on time, and for obtaining any class notes given in their absence. Class participation is required.

Students who do not maintain contact with the instructor for more than one week may be dropped from the course.

Course Objectives: (Student Outcome Objectives) The goals for this course are in line with the departmental guidelines on reform and on technology-assisted teaching.

Upon completion of this course, the student will be able to:

1. Solve problems in elementary probability, discrete probability distributions, continuous probability distributions, estimation, correlation, and regression.
2. Communicate mathematical thinking coherently and clearly;
3. Prove various theorems of mathematical statistics;
4. Evaluate and analyze means and variances;
5. Apply probability and statistics to various problems in the mathematical sciences.

Final Grade will be determined by the following scheme

Let T = total number of points gained by student

N = total number of points possible in course

Then Final Grade = $(T/N) * 100\% = (T \div N) * 100\%$

Scale: 89.5 – 100 A
79.5 – 89.5 B
69.5 – 79.5 C
59.5 – 69.5 D

Disciplinary action for academic dishonesty will be handled according to the Code of Student Conduct. Dishonesty will not be tolerated.

Cheating / Academic Honesty Policy: The University expects all students to maintain absolute integrity and a high standard of individual honor in all academic work. Students caught cheating will be disciplined according to the process described in Section 1.9 of the Code of Student Conduct.

The Mathematics Department is located in room 108 Peltier; the phone number is (985) 448-4381.

Evaluation: There will be at least two tests. One of these will be the final exam. The point value of each test will be announced in advance. Dates of the tests will also be announced in advance.

There may also be quizzes and projects throughout the course. These cannot be made up, but these exercises will also be announced in advance.

A course outline is attached.

Americans with disabilities Act: If you have a documented disability that requires assistance, you will need to register with the Office of Disability Services for coordination of your academic accommodations. The Office of Disability Services is located in Peltier Hall, Room 100-A. The phone number is (985) 448-4430 (TDD 449-7002).

Content Outline:

- I. Probability Distributions
- II. Expectation
- III. Estimation
- IV. Regression
- V. Hypothesis Testing
- VI. Miscellaneous Topics in Mathematical Statistics

Make-up Procedure: Except in extreme circumstances there will be no make-up exams. Make-ups, if allowed, will take place during a mutually convenient time or final exam week during the scheduled make-up period. If a student knows in advance of a scheduled exam that he or she will be absent because of a sanctioned school function or medical appointment, then the student may take the exam prior to the scheduled exam date, if arrangements are made sufficiently in advance with the instructor and documentation of the absence can be produced by the student.

Academic Grievances:

The proper procedure for filing grade appeals or grievances related to academic matters is listed in Section 5 of the Code of Student Conduct and at the following link: http://www.nicholls.edu/documents/student_life/code_of_conduct.pdf.

Continued Learning following an Extreme Emergency:

In order to make continued learning possible following an extreme emergency, **students are responsible for:**

- reading regular emergency notifications on the NSU website;
- knowing how to use and access Blackboard (or university designated electronic delivery system);
- being familiar with emergency guidelines;
- evacuating textbooks and other course materials;
- knowing their Blackboard (or designated system) student login and password;
- contacting faculty regarding their intentions for completing the course.