

FREC 408

EXAM 2 OVERVIEW

October 15, 2003

You may bring a single sheet of paper with as many notes on it as you can fit front and back.
It must be your paper and not a photocopy of someone else's notes.

The Exam will consist of the following

- 5 True/False worth 3 pts each 15 pts
- 5 Multiple Choice worth 3pts 15 pts
- Three data problems with multiple questions involving probability problems 25 pts for a Table probability problem
25 pts for a binomial problem
20 points for a normal distribution problem

The Exam Covers

- Chapter 4, but not sections 3.7 and 3.8
- Chapter 5, but not 5.4 and 5.5
- Chapter 6, but only 6.1 and 6.2
- All In-Class Notes and Handouts

Terms and Concepts to Know

- Observation
- Experiment
- Sample Point
- Sample Space
- Event
- Mutually Exclusive Events
- Collectively Exhaustive
- Union of Events
- Intersection of Events
- Complement
- Ways to represent the Sample Space (Table, Venn Diagram, Decision Tree)
- Probability defined
- Law of Averages
- A priori Probability
- A posteriori Probability
- Additive Rule of Probability
- Conditional Probability
- Multiplicative Rule of Probability
- Odds and Odds Ratios
- Independent Events
- Understanding a cross-tabulation in terms of probability
- Discrete Random Variables
- Probability Distribution for Discrete Random Variables
- Expected Values of Discrete Random Variables
- Variance of Discrete Random Variables
- Binomial Random Variables
- Binomial Probability Distribution
- Binomial Mean and Variance
- Use of the Binomial Table
- Continuous Random Variables
- Normal Distribution
- Normal Random Variable
- Standard Normal Distribution
- Use of the Standard Normal Table
- z-scores for a normal random variable