

STAT 291 - Statistics for the Mathematical Sciences I

Review Sheet for Exam II

Chapter 3

- Definition of a random variable
- Probability Distributions
- Discrete random variables
- Probability mass functions and their properties
- Expected values and variance
- Binomial random variables
- Poisson random variables

Chapter 4

- Continuous random variables
- Probability density functions and their properties
- Cumulative distribution functions for continuous random variables
- Expected values and variance
- The Normal (or Gaussian) distribution
- The Gamma function
- The Gamma distribution (and Exponential and Chi-squared)
- The Beta distribution