STAT 706 General Info for Exam 1 - SPRING 2019

- **EXAM 1: Thursday February 28 in class**

- The exam will cover Sections 1-4 and 5.1 in Rosenthal (which correspond to Sections 1-5, parts of Sections 10-14, 20, and 21 in Billingsley).

- The best practice to study for the exam is to review your class notes, examples, and homework assignments.

- Topics to study:

  1. The need for measure theory

  2. Probability spaces, σ-algebra vs. algebra, Borel σ-algebra, probability measure

  3. Random variables, independence, limit events, Borel-Cantelli lemmas

  4. Expected value and its connection with the integral