• 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, $\sigma$-algebra vs. algebra, Borel $\sigma$-algebra, probability measure

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

4. Expected value and its connection with the integral