

Math 375: Probability Theory

Spring 2018

Professor Levandosky

Course Web Page. <http://mathcs.holycross.edu/~slevando/375/>

Contact Information.

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Office Hours: MWF 2-3, T 1-2, or by appointment.

Required Text. *Mathematical Statistics*, 3rd edition, by Wackerly, Mendenhall and Schaffer. This book is available in the Holy Cross bookstore. We will cover material from Chapters 2 through 6.

Course Description. The focus of this course will be on the theory and applications of probability. We will begin by considering basic notions such as sample spaces and events, conditional probability, independence, and Bayes' Rule. We will then consider random variables, continuous and discrete distributions, expected values, joint distributions, and functions of random variables. Emphasis will be placed on both understanding the mathematical foundations of the theory, and applying the theory to solve problems.

Homework. There will be weekly homework assignments. You may discuss the homework problems with each other. However, anything you hand in should be written in your own words, and you must indicate who you worked with on the front page of your assignment.

Exams. There will be three midterm exams and a final exam. The midterm exams will all be held from 5:30pm to 7:00pm in Smith Labs 154. The final exam will be in our regular classroom, Swords 328. Please let me know as soon as possible if you have a conflict with any of the exam times.

- Exam 1: Tuesday, February 20
- Exam 2: Tuesday, March 20
- Exam 3: Tuesday, April 24
- Final Exam: To Be Announced

Grades. Grades will be calculated using the following system. Homework will be worth 15%, midterm exams will be worth 20% each, and the final exam will be worth 25%.