

MATH/STAT 414 Introduction to Probability Theory

2017: 8-week summer session

Class Information

Time: Mon-Thur 2:20 PM - 3:35 PM
Classroom: 262 Willard Building

Instructor: Xiaoxiao Li
Office: 301 Thomas Building
Email: xxl90@psu.edu
Office hour: Monday 10:00 AM - 11:00 AM

Teaching Assistant: Benjamin Straub
Office: 333 Thomas Building
Email: bbs5179@psu.edu
Office hour: Tuesday & Thursday 10:10 AM - 11:00 AM

Topics Covered

Probability spaces, discrete and continuous random variables, transformations, expectations, generating functions, conditional distributions, law of large numbers, central limit theorems.

Required Materials

- *A First Course in Probability*, 9th Edition, by Sheldon Ross; ISBN-13: 978-0-321-79477-2. We will cover most sections from Chapter 1 to Chapter 8.
- Not required but very helpful resource from PSU STAT414 online class: <https://onlinecourses.science.psu.edu/stat414/>

Grade Distribution

Requirement	Total Percent of Grade	Date
10 Homeworks	20 %	-
5 Quizzes	15 %	Jun 15,22 July 6,3,27
Midterm Exam I	15 %	Jun 29
Midterm Exam II	20%	July 20
Comprehensive Final Exam	25 %	August 7 (Monday)
Participation	5 %	-

Grading Policy

- Homework should be submitted at beginning of class. Late homework will be accepted only within 24 hours after the due time with a 20% reduction in score and no homework will be accepted afterwards. The lowest homework will be dropped. Collaboration is encouraged, however each student must turn in his or her own work.
- Quizzes are 20 minutes long on average, covering material mainly from the corresponding weeks.
- No make-up exams will be given. However, in some rare cases such as serious illness and injury, the points for the missed exam may be regained by a different weighting of the other exams. In such situations, the student must inform the instructor **before the exam date** and provide the corresponding proof.
- Participation is determined by taking random attendance.

Final grades will be assigned tentatively according to the following table.

A	A-	B+	B	B-	C+	C	D	F
93%	90%	87%	83%	80%	77%	70%	60%	<60%

Course Prerequisites

Fluency with elementary calculus (derivatives, integrals, etc)

Course Website

CANVAS: <http://canvas.psu.edu/>

Appendices

All Penn State University, College of Science, and Department of Statistics policies regarding ethics, honorable behavior, and mutual respect apply in this course.

Penn State's Policies:

<http://www.psu.edu/ufs/policies/>

College of Science's Academic Integrity Policy:

<http://science.psu.edu/current-students/Integrity/Policy.html>

College of Science's Code of Mutual Respect and Cooperation:

<http://science.psu.edu/climate/code-of-mutual-respect-and-cooperation>

If you have a disability-related need for reasonable academic adjustments in this course, contact the office for Disability Services (ODS) at 814-863-1807 or visit their website <http://equity.psu.edu/ods/>