

**00132380: Probability Theory and Statistics (B)**  
**Spring 2019**

**Lectures:** Wednesdays 10:10–12:00 noon, even Mondays 1:00–2:50 pm, 306 Science Classroom Building

**Instructor:** Wei Lin (weilin@math.pku.edu.cn)

*Office hours:* Wednesdays 2:00–4:00 pm, 1547 Science Building 1

**Teaching Assistants:** 邓玉颖 (dengyuying@pku.edu.cn), 张鑫 (alpoise@pku.edu.cn)

*Office hours:* Thursdays 9:00–11:00 am, 2nd Floor Southeast Corner, Science Building 1

**Course Description:**

This is an undergraduate upper-level course for students majoring in science, engineering, and other fields where applied probability and statistics play an essential role. Topics covered include basic concepts of probability, random variables and vectors, expectation and variance, laws of large numbers and central limit theorems, descriptive statistics, point and interval estimation, hypothesis testing, simple linear regression, analysis of variance, and additional topics when time permits.

**Required Text:**

何书元 (2013). 概率论与数理统计 (第 2 版). 北京: 高等教育出版社.

**References:**

1. Larsen, R. J. and Marx, M. L. (2018). *An Introduction to Mathematical Statistics and Its Applications* (6th ed.). Boston: Pearson.
2. Hogg, R. V., McKean, J. W. and Craig, A. T. (2019). *Introduction to Mathematical Statistics* (8th ed.). Boston: Pearson.

**Homework:**

There will be homework assignments due approximately every other week in class. If you missed the class, contact the TAs to turn in your homework by the end of the day. No late homework will be accepted.

**Exams:**

There will be a midterm exam on Wednesday, April 17, 2019 in class and a final exam on Monday, June 10, 2019, 2:00–4:00 pm (inclusive, emphasizing materials since the midterm), both closed book.

**Grading:**

The course grade breaks down as follows: homework 20%, midterm exam 35%, and final exam 45%.

**Website:**

Lecture topics and homework assignments will be posted on the course website at <http://www.math.pku.edu.cn/teachers/linw/32380s19.html>.