

MATH 562-01 MATHEMATICAL STATISTICS**FALL 2018**

- Instructor:** Dr. Wei-Bin Zeng
Office: 216 Natural Sciences Building
Hour: 9:30 – 10:30 a.m., MW, and by appointment
Phone: 852-5837
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- Class Time:** 11:00 – 11:50 a.m., MWF, NS 128
- Text:** *PROBABILITY AND MATHEMATICAL STATISTICS*, by Prasanna Sahoo, University of Louisville.
- Material:** A review of Chapters 13 and 14; Chapters 15 – 18; and selected topics from Chapters 19 – 21. Supplementary materials may be provided.
- Description:** This course presents the fundamental ideas of mathematical statistics, with emphasis on statistical concepts and rigor derivation of the theory. Starting with the *Sampling Distribution Theory* (chapters 13 - 14), we will consider *Point Estimations*, *Interval Estimations*, *Tests of Statistical Hypotheses*, and *Goodness-of-fit Tests*. Additional topics may be covered.
- Prerequisite for Math 562 includes *Calculus I – III* (Math 205, Math 206 and Math 301), *Linear Algebra* (Math 325), and *Probability* (Math 561).
- Homework:** Homework problems will be assigned from time to time. They will be due at the class period one week later or otherwise specified. Some will be selected and graded. Homework scores will add up to 200 points.
- Examinations:** The tentative plan is to have three tests, each worth 100 points, and a comprehensive final exam of 200 points.
- Extra Credit:** Extra credit problems assigned with homework problems are optional for undergraduates, but mandatory for graduate students. There will be a total of 50 points from extra credit problems counted toward the course grade for graduate students.
- Grading:** There will be a total of 700 points (750 points for graduate students) from homework, tests and final exam. The course grade will be assigned according to points earned out of total points. Broadly speaking, 90% and above corresponds to A (+/-), while 60% to 69% would be a D (+/-).
- Remarks:** No late assignment will be accepted. Any changes of this syllabus will be announced in class, so please make sure that you are aware of what is going on in class.

THE FINAL EXAM WILL BE DUE BY 12:00 NOON, MONDAY, DECEMBER 3, 2018