Statistics 511: Statistical Inference  
Winter 2017, Section 1

- **Instructor:** Dr. Shuheng Zhou  
  Office: 445B West Hall  
  Email: shuhengz@umich.edu  
  Office Hours: Mondays from 3:00 – 4:00 pm; Wednesdays from 3:00 – 4:00 pm  
  Class Time: Mon-Wed 10:10-11:30 am  
  Class Location: Mason Hall 1339

- **GSI:** Yanzhen Deng dengyz@umich.edu  
  Office Hours: Thursdays 3:00 - 4:30pm  
  Location: Science Learning Center, 1720 CHEM

- **GSI:** Byoungwook Jang bwjang@umich.edu  
  Office Hours: Thursdays 4:30 - 5:30pm; Fridays 9 - 11am  
  Location: Science Learning Center, 1720 CHEM

- **Textbook:**  

- **Other Recommended Texts:**  

- **Lecture notes, handouts, some solutions:** will be posted online

- **Homework assignments:** Due Mondays in class at 10:10 am. Make sure write the course section number (Stat 511-001) on your assignment in large clear letters. No late assignments will be accepted. The lowest two homework grades will be dropped. If a homework is not turned in due to illness or travel, then this homework grade will be one of the two dropped grades.

- **Reading and Class Notes:** Class notes will be posted online regularly. Bring a copy to class. The notes are not meant to be a substitute for the book and hence are generally quite terse. Read both the notes and the text before lecture. Sometimes I will cover topics from other sources.

- **Exams:** The two midterm exams and the final exam are closed book. You may bring a 8.5 by 11 sheet of handwritten notes with you to each exam.
  
  - The dates of the two midterm exams are **Feb. 22 (Wed.)** and **March. 29 (Wed.)**. The time is **1:10pm - 2:30pm**. Both exams will take place in **West Hall 340**.
  
  - The final is on **Tuesday, April 25 1:30 pm - 3:30 pm**.
• **Grading:**
  
  – The best two of the three grades (homework grade, two midterm exams) are retained and counted 33% each. If an exam is missed due to illness or travel, then this exam grade will be the dropped grade. The final counts for 33% of the total grade.

• **Topics to be covered:** Selected material from Chapters 5-12 will be covered.

• **Collaborations:** Collaboration with fellow students on homework is permitted, but they must be written up independently. Collaboration on written exams is not permitted.

• **Course outline:**

  1. Quick review of basic probability
  2. Random samples
  3. Distributions Derived from the Normal Distribution
  4. Convergence Concepts
  5. Sufficiency
  6. Exponential Family: review
  7. Likelihood
  8. Point Estimation
  9. Asymptotics: Large Sample Theory
  10. Robustness
  11. Hypothesis Testing
  12. Confidence Intervals
  13. Bayes Estimates, Risks and Minimax Theory
  14. Nonparametric Inference and other selected topics

• **Academic integrity and LS&A student academic affairs:** I expect that everyone will act with integrity. See the following link if you have questions:
  
  [http://www.lsa.umich.edu/academicintegrity/](http://www.lsa.umich.edu/academicintegrity/)

  The College expects students to attend all class sessions, but we know that illnesses do occur. Please check out rules on *Student Class Attendance* and *report my illness*. 