Instructor: Xiaohui Chen (email: xhchen@illinois.edu). Office: 104A Illini Hall.

Class: Lecture BL1: TR 12:30pm – 1:50pm, Bevier Hall 180.

Office Hours: TR 2pm – 3pm.

Course TAs:
• Albert Yu (ayu12@illinois.edu).
• Sooin Yun (syun13@illinois.edu).

Discussion Sessions (led by the TAs):
• BD1: T 3:00pm – 3:50pm, 243 Mechanical Engineering Bldg. (Yu)
• BD2: T 4:00pm – 4:50pm, 1027 Lincoln Hall. (Yun)
• BD3: W 2:00pm – 2:50pm, 1027 Lincoln Hall. (Yu)
• BD4: W 1:00pm – 1:50pm, 1065 Lincoln Hall. (Yun)

Tutor Hours: M – R, 5pm – 7pm, Room 2, Illini Hall.

Course Website:
• Course progress, tentative schedule and announcement will be updated at: 
  http://publish.illinois.edu/xiaohuichen/teaching/stat400/
• Lecture notes and slides: Compass 2g.


Topics: This is an introductory course to mathematical statistics that develops probability as needed. Topics to be covered are:
1. Probability and random variables (Ch.1)
2. Discrete and continuous distributions (Ch.2-4)
3. The central limit theorem and normal approximation (Ch.5)
4. Point estimation and confidence intervals (Ch.6)
5. Hypothesis testing (Ch.7)

1https://compass2g.illinois.edu/webapps/login/
**Homework:** Weekly homework will be assigned. Carefully working on the homework is the best way to prepare for the midterms and the final exam.
- There will be 13 or 14 homework assignments.
- Homework is due by 11:59pm on the due date.
- All homework will be electronically available on and be submitted to the LON-CAPA.²
- **No late homework** will be accepted for grading and missed homework will be a zero mark.
- **Two lowest** homework scores will be dropped for your final grade.
- You may discuss the problems with other students in class. However, problem solutions must be on your own.

**Notes:** There is a deadline for the homework answers to be entered in the computer. Do not wait until the last day since the computer load can be very high at the due times and the computer time may NOT be necessarily the time on your watch. Starting the problems early and allowing adequate management time are recommended.

**Exams:** There will be three midterm exams and a comprehensive final exam. The exam dates are:
- Midterm exam I: **T, Feb. 23, 12:30pm – 1:50pm in class.**
- Midterm exam II: **R, Mar. 17, 12:30pm – 1:50pm in class.**
- Midterm exam III: **T, Apr. 19, 12:30pm – 1:50pm in class.**
- Final exam: **TBD**

**Notes:**
- A missing midterm exam will result a zero mark.
- If you are unable to make the exam, you must contact the instructor at least one week before the exam. All excuse must be made for a legitimate reason (e.g. illness with a doctor’s note). There will be NO MAKE-UP midterm exams. However, grading weight for a missing midterm exam based on a legitimate reason will be imputed by your the final exam score.

**Grading:** Your grade for this course will be
- Homework: 25%
- Midterms: 45%
- Final exam: 30%

As an example: if you have: 110 out of 120 for homework, 120 out of 150 for midterms, and 80 out of 100 for final exam, then the your grade for this course is: 110/120 × 25% + 120/150 × 45% + 80/100 × 30% = 82.92%.

²The Learning Online Network with Computer Assisted Personalized Approach server. [https://access1.lon-capap.uiuc.edu/adm/roles](https://access1.lon-capap.uiuc.edu/adm/roles)