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

Class: Lecture CL1: MWF 12:00pm – 12:50pm, 124 Burrill Hall.

Office Hours: Mon & Wed, 4:00pm – 5:00pm, or by appointment via email.

Course TAs:
• Jianjun Hu (email: hu31@illinois.edu).
• Albert Man (email: aman3@illinois.edu).

Discussion Sections (led by the TAs):
• CD1: Tue 1:00pm – 1:50pm, 311 Gregory Hall.
• CD2: Wed 4:00pm – 4:50pm, 311 Gregory Hall.
• CD3: Thur 1:00pm – 1:50pm, 311 Gregory Hall.

Tutor Hours: 5pm–7pm, Mon–Thur, 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.¹


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)

Homework: Weekly homework will be assigned. Carefully working on the homework is the best way to prepare for the midterms and the final exam.

¹https://compass2g.illinois.edu/webapps/login/
• There will be 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. Don’t 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 two midterm exams and a comprehensive final exam. The exam dates are:
• Midterm exam 1: **Fri, Oct 18, 12:00pm – 12:50pm in class.**
• Midterm exam 2: **Fri, Dec 6, 12:00pm – 12:50pm in class.**
• Final exam: **Tue, Dec 17, 7:00pm – 10:00pm.**

**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 two weeks 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 transferred to the corresponding section in the final exam.

**Grading:** Your grade for this course will be computed as follows:
• **Homework:** $12 \times 10 = 120$ points – 30.0%
• **Midterms:** $2 \times 70 = 140$ points – 30.0%
• **Final exam:** $1 \times 140 = 140$ points – 40.0%
• **Total:** $400$ points – 100%

The grade will be lettered as follows:

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<tr>
<th>Grade</th>
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<tr>
<td>A+</td>
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**Notes:** The instructor reserves the right to make any changes that are considered academically advisable. Such changes, if any, will be announced in class.

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