

STAT:5101 Statistical Inference II
Sprng, 2024

1. Instructor: Kung-Sik Chan SH 241 335-2849 kung-sik-chan@uiowa.edu
drop-in hours: Tue 1pm-2pm and Fri 1pm-3pm or by appointment.
2. Department: Statistics and Actuarial Science DEO contact information (Kung-Sik Chan, 241 SH, phone: 319-335-2849, email: kung-sik-chan@uiowa.edu)
3. Time and location of class: 10:30am - 11:20am MWF; 31 SH
All lecture notes will be posted on ICON. Class attendance is an essential part of learning and you are encouraged to attend every class. In case you miss a class, you may view the lecture materials posted on ICON.
4. Textbook:
"Statistical Inference" (2nd edition) by G. Casella and R.L. Berger, ISBN: 9780534243128
5. Description of course: We will cover chapters 6 to 10 of the textbook "Statistical Inference." We aim to give a relatively rigorous treatment on several topics that provide the foundation of statistical inference. Topics include data reduction, sufficient statistics, ancillary statistics, efficiency, robustness, estimation methods (method of moments, maximum likelihood, estimating equations), point and interval estimates, hypothesis testing and asymptotic methods.
6. Learning Objectives:
 - (a) Understanding of the general principles of statistical inference.
 - (b) Assessing the uncertainty in statistical inference.
 - (c) Constructing and critiquing statistical methods for statistical inference.
 - (d) Using statistical reasoning for decision making.

After taking this class, students will have a solid understanding and the knowhow of general statistical inference with data.

7. Prerequisite: STAT:5100 or equivalent
8. Course requirements:

	date	percent
Homework		25%
Quizzes	1/26, 2/7, 3/1, 3/20, 4/12, 4/24	25%
Exams	2/19, 4/1, both in 110 MLH from 6:30-8:30pm	30%
Final Exam	TBA	20%

Several homework assignments will be given. Discussion with fellow students on the exercises of the homework is allowed, but each student must write their own solutions. One homework (one quiz) with the lowest score will be dropped from the determination of the final grade. All HW, quizzes and exams are cumulative, with greater weight on recently introduced topics/materials. Exams and quizzes are closed book.

9. The teaching assistant Ms Anh Nguyen will hold weekly drop-in hour in 31 SH on Wednesday 11:30am-12:20pm. During the drop-in hours, Ms Anh Nguyen (phuonganh-nguyen@uiowa.edu) will answer questions on course materials and work out further examples for illustrating the concepts taught in the class.

10. Grading policy: Your grade for this course will be assigned according to the following *approximate* scale:

90	to	100	A
80	to	89	B
70	to	79	C
60	to	69	D
0	to	54	F

This scale is not absolute, and the cutoff points may vary depending on the difficulty of the exams. Also, borderline cases may receive a + or -. The College and EPC ask that the A+ grade be used only in extraordinary situations.

Listed on the next two pages are collegiate and university policies.