

Statistics 6301: Probability for Statistical Inference

Autumn 2023

NOTE: Syllabus may be subject to change as the semester evolves

Instructor: Dr. Elizabeth A. Stasny, 319 Cockins Hall, 614-292-0784, stasny.1@osu.edu

Virtual Office Hours: Wednesdays, 4:00 – 5:00 p.m. (Zoom link posted on Carmen) and by prior arrangement

Course Assistant: Ms. Biqing Yang, yang.5733@buckeyemail.osu.edu

Virtual Office Hours: Fridays, 4:30 – 5:30 p.m. (Zoom link posted on Carmen)

Text: Rice, *Mathematical Statistics and Data Analysis*, 3rd Edition. We cover the first six chapters of the book in this class; the book is also used for Statistics 6302.

Other Possibly Useful References:

Introduction to Mathematical Statistics, by Hogg and Craig.

Introduction to Probability and Mathematical Statistics, by Bain and Engelhardt.

Prerequisites: Math 4547 or Math 548 or permission of the instructor.

Course Requirements: You are responsible for all material covered in class, in assigned readings, and on homework assignments.

Web Page and Email: Course information and grades on assignments and exams will typically be available through Carmen. Any email correspondence regarding this class must be from your OSU name.# account. Please use my regular email (stasny.1@osu.edu) rather than contacting me through Carmen messaging.

Course delivery: The class is scheduled to be delivered in person. Office hours will be held virtually over CarmenZoom. If a switch to virtual course delivery is needed, the class will be delivered live using CarmenZoom from 11:30 – 12:25 MWF, as scheduled.

Use of Electronic Devices in Class: Any recording during class, using video, audio, or still photography, is permitted only with prior permission from the instructor.

Homework: Assignments will be due approximately weekly. They are to be submitted online through Carmen by 11:15 a.m. on the due dates. **No late assignments will be accepted.**

It is your job to ensure that your homework is easy to grade. Answers without work will not receive full credit. While I encourage graduate students to work together and learn from each other, your submissions must be your own and should demonstrate your own personal understanding of the problems. Academic misconduct of any sort will not be tolerated and will be dealt with as required by the OSU Code of Student Conduct (see <http://studentlife.osu.edu/csc/>).

Writing: Any written solutions to problems must be given in proper English and in terms of the problem.

Midterms: Monday, September 25 and Monday, October 30.
One sheet (8.5" x 11") of handwritten notes may be used for each exam.

Final Exam: Thursday, December 14, 10:00-11:45 a.m.
Two sheets (8.5" x 11") of handwritten notes may be used for the exam.
Please note that any holiday travel must be made **AFTER** the scheduled exam time.

Ohio State's academic integrity policy: It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

Grades: The final numerical grade will be determined as follows:

- Homework (lowest grade dropped) 20%
- Midterm Exam I 20%
- Midterm Exam II 20%
- Final Exam 35%
- Class Participation 5%

Other Useful Information:

See the Statistics Graduate Studies Chair, Professor Xinyi Xu, if you wish to enroll in the dual degree program with the MAS as your second degree or if you wish to enroll as a student in our graduate minor.

Copyright Disclaimer:

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

OSU Statement on Religious Accommodations:

It is Ohio State's policy to reasonably accommodate the sincerely held religious beliefs and practices of all students. The policy permits a student to be absent for up to three days each academic semester for reasons of faith or religious or spiritual belief.

Students planning to use religious beliefs or practices accommodations for course requirements must inform the instructor in writing no later than 14 days after the course begins. The instructor is then responsible for scheduling an alternative time and date for the course requirement, which may be before or after the original time and date of the course requirement. These alternative accommodations will remain confidential. It is the student's responsibility to ensure that all course assignments are completed.

Statement on Title IX:

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Interim Title IX Coordinator, Melissa Mayhan, at titleIX@osu.edu or 614-247-5838.

Accessibility accommodations for students with disabilities:

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, please make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; 098 Baker Hall, 113 W. 12th Avenue.

Your mental health:

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you, or someone you know, are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614- 292-5766. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 988 or at suicidepreventionlifeline.org.