

**STAT 6301 PROBABILITY FOR STATISTICAL INFERENCE
AUTUMN SEMESTER 2022**

Lecture: MWF 11:30AM-12:25PM in Cockins Hall 312

Instructor:

Dena Asta
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Office Hours: MW 1:00PM-2:00PM or by appointment
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Grader:

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

Textbook: *Mathematical Statistics and Data Analysis* (Third Edition) by John Rice.

Note: The international edition has different exercise problems and is therefore not recommended.

The textbook is on reserve in the Science and Engineering Library (SEL).

Website: The course has a web page on Canvas. You will find the class schedule, homework assignments, solutions, and other course announcements on the web page. Please check it on a regular basis.

Tentative Course Schedule

Topics	Chapters	No. of Lectures
Sample space and probability	1	6
Univariate random variables	2	9
Joint distributions	3	9
Expectations and variances	4	9
Law of large numbers and central limit theorem	5	4
Normal-derived distributions	6	2

Tentative Homework Assignment Schedule*

HW	Due Date	Chapters Covered
1	Wednesday, September 7	1
2	Friday, September 16	1
3	Friday, September 23	2
4	Friday, September 30	2
5	Friday, October 7	2, 3
6	Monday, October 17	3
7	Monday, October 24	3
8	Monday, October 31	3, 4
9	Monday, November 7	4
10	Wednesday, November 16	4
11	Monday, November 28	4, 5
12	Monday, December 5	5

*Homework assignments will be posted on the course website. The schedule and chapters covered are tentative; actual due dates will be announced in class.

Grading

Your course grade will be based on homework assignments, two midterms, and a comprehensive final exam.

Homework	20%	(lowest grade dropped)
Midterm I	20%	tentatively on September 26 (Monday) in class
Midterm II	20%	tentatively on October 31 (Monday) in class
Final	40%	December 15 (Thursday) 10:00-11:45AM

Homework: There will be approximately 1 assignment every week. Homework problems and solutions will be posted on Carmen. Answers without work will not receive full credit. No late homeworks will be accepted. Homework is due at the beginning of class.

Exams: No make-up exams will be given. The final exam will be cumulative, but will emphasize the more recent material. Exam rules will be announced in class.

Academic integrity policy

The main purpose of this course is for you to learn the material and to increase your understanding of Statistics. For the homework assignments, you are encouraged to talk with fellow students and to work on the problems with them. However, your write-up should be your own. For exams, you are to work solely on your own, and you may not use materials other than those designated by the instructor. Note that this policy of open discussion on the homework is specific to this course. Other instructors and other courses may well have a different policy. Make sure that you understand the policy for each course that you take.

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/>.

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.

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 kind 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 Title IX Coordinator, Kellie Brennan, at titleix@osu.edu.

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, 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.

Mental health statement

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. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. 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 1-800-273-TALK or at suicidepreventionlifeline.org.