

STAT 210: Introduction to Probability and Statistics

Spring 2024

MWF 10:00-10:50, Harris 107

Maxim Sinitsyn, msinitsyn@northwestern.edu

Office Hours: Th 11:30-1:30 in KGH 3227

Discussion Sessions (**no sessions first week**):

21 Tu, 5:00-5:50, Parkes Hall 223

22 Th, 4:00-4:50, Frances Searle 2370

23 Tu, 5:00-5:50; Lunt Hall 105

24 Th 4:00-4:50, University Hall 101

25 Tu 5:00-5:50, Parkes Hall 214

26 Th 4:00-4:50, Locy Hal 301

TAs (**No OHs or sessions first week**):

Michael Armah (MichaelArmah2027@u.northwestern.edu)

(Sessions 24 and 25; Office hours, Th 1:30-3:30 in Stats building basement)

Nick Henner (nickhenner2025@u.northwestern.edu)

(Sessions 22 and 23; Office hours, T 3-5 in Stats building basement)

Xincheng Li (XinchengLi2027@u.northwestern.edu)

(Sessions 21 and 26; Office hours, M 11-1 in Stats building basement)

Course Objectives: The objective of this course is to equip students with the probabilistic and statistical techniques needed to support empirical analysis of data in economics and other social sciences. By the end of the class, students should increase their knowledge of both descriptive and inferential statistics, gain healthy respect and admiration for probability theory, confidently construct confidence intervals and conduct hypothesis tests.

Required Text:

The textbook for the course is *Statistics for Business and Economics* (Eighth Edition) by Paul Newbold, William L. Carlson, and Betty M. Thorne. We are using *Statistics for Business and Economics: Second Custom Edition for Northwestern University*, which includes just the first 11 chapters from the eighth edition.

Weekly Homework: Each week, I will post practice problems on Canvas. They will not be graded. The best way to prepare for the exams is to form study groups, work on the problems on your own in the beginning and then go over the problem sets together. I will post the answers after the problems are reviewed by TAs in discussion sessions. It is essential that you practice solving these questions. Reading the solutions will not prepare you for the exams.

Exams: Grading will be based on two projects (5% each), two midterms (25% each) and a final examination (40%). The final exam will be cumulative. You must take both midterms. The dates for the midterms are April 26th and May 17th. The final exam is on Tuesday, June 4th, at 3pm. All exams are closed book, and you can use calculators. If you are feeling sick, you should provide me with a doctor's note and not take an exam. If a student attempts an exam, its score will have to count.

This is a fast-paced challenging quantitative class with an emphasis on problem solving. Textbook exercises provide a useful guideline for your progress. A student who receives an A- for this course should be able to correctly solve any exercise from the textbook. A student who receives a C- for this course should be able to correctly solve about half of the exercises.

Quarter-Long Study Group Opportunity – Registration Required:

If you would like to study with other students in this class, consider joining a [Peer-Guided Study Group](#). Participants will meet weekly with about 5 to 8 other students and a peer facilitator, a student who has already taken and done well in the course. During sessions, students review concepts, work through practice problems, bring their questions, and work together to develop answers. Students register for the full quarter on CAESAR, and attendance is expected weekly. Study Group sessions are listed on CAESAR below course lecture and discussion sections (when searching for study groups, enter “SG” in the Course Number field in CAESAR to get a complete list of sections). Feel free to contact Borislava at pqsg@northwestern.edu with any questions. Provided through [Academic Support & Learning Advancement](#).

Drop-In Peer Tutoring – No Appointment Needed:

Students are welcome to stop by [Drop-In Peer Tutoring](#) to get support with a specific question or issue, or just talk through course materials with others. Tutoring is offered for this course and many introductory courses in Biology, Chemistry, Economics, Engineering, Math, Physics and Statistics. Tutoring takes place Sundays through Thursdays. **Check specific times, courses, and locations on the [Drop-In Peer Tutoring website](#).** Feel free to contact Valerie at valerie.wolf@northwestern.edu with any questions. Provided through [Academic Support & Learning Advancement](#).

Additional Academic Support Options:

ASLA offers [individual and group peer academic coaching](#), as well as [consultations](#), to help students navigate their academic paths and refine their study strategies.

Schedule

Weeks 1-4	Chapters 1-3	MT1 on April 26 th No class on April 8 th
Weeks 5-7	Chapters 4-6	MT2 on May 17 th
Weeks 8-10	Chapters 7, 9, 10	Final on June 4 th at 3pm

A detailed schedule of what was covered in each lecture is in the file “Stat210 Schedule for Spring 24” in Modules on Canvas.

Northwestern Syllabus Statements

Academic Integrity: Students in this course are required to comply with the policies found in the booklet, "Academic Integrity at Northwestern University: A Basic Guide". All papers submitted for credit in this course must be submitted electronically unless otherwise instructed by the professor. Your written work may be tested for plagiarized content. For details regarding academic integrity at Northwestern or to download the guide, visit: <https://www.northwestern.edu/provost/policies/academic-integrity/index.html>

Accessibility: Northwestern University is committed to providing the most accessible learning environment as possible for students with disabilities. Should you anticipate or experience disability-related barriers in the academic setting, please contact AccessibleNU to move forward with the university's established accommodation process (e: accessiblenu@northwestern.edu; p: 847-467-5530). If you already have established accommodations with AccessibleNU, please let me know as soon as possible, preferably within the first two weeks of the term, so we can work together to implement your disability accommodations. Disability information, including academic accommodations, is confidential under the Family Educational Rights and Privacy Act.

Course Details Subject to Change: Please note that the specifics of this course syllabus are subject to change in the case of unforeseen circumstances. Instructors will notify students of any changes as soon as possible. Students will be responsible for abiding by the changes.

Prohibition of Recording of Class Sessions by Students: Unauthorized student recording of classroom or other academic activities (including advising sessions or office hours) is prohibited. Unauthorized recording is unethical and may also be a violation of University policy and state law. Students requesting the use of assistive technology as an accommodation should contact [AccessibleNU](#). Unauthorized use of classroom recordings – including distributing or posting them – is also prohibited. Under the University's [Copyright Policy](#), faculty own the copyright to instructional materials – including those resources created specifically for the purposes of instruction, such as syllabi, lectures and lecture notes, and presentations. Students cannot copy, reproduce, display, or distribute these materials. Students who engage in unauthorized recording, unauthorized use of a recording, or unauthorized distribution of instructional materials will be referred to the appropriate University office for follow-up.

Support for Wellness and Mental Health: Northwestern University is committed to supporting the wellness of our students. Student Affairs has multiple resources to support student wellness and mental health. If you are feeling distressed or overwhelmed, please reach out for help. Students can access confidential resources through the Counseling and Psychological Services (CAPS), Religious and Spiritual Life (RSL) and the Center for Awareness, Response and Education (CARE). Additional information on all of the resources mentioned above can be found here:

<https://www.northwestern.edu/counseling/>

<https://www.northwestern.edu/religious-life/>

<https://www.northwestern.edu/care/>

Exceptions to Class Modality: Class sessions for this course will occur in person. Individual students will not be granted permission to attend remotely except as the result of an Americans with Disabilities Act (ADA) accommodation as determined by AccessibleNU.