

# MATH 311 – Probability and Statistics I

## Fall 2021

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**Lectures:** MWF 12:00 pm - 12:50 pm, Pearlstein Business Center, Room 307

**Instructor:** Cecilia F. Mondaini  
E-mail: cf823@drexel.edu

**Office hours:** Mondays 9:00 am - 10:00 am (or by appointment)

**Recitation sessions:** Led by Sultan Aitzhan – Thursdays, 12:00 pm - 12:50 pm, Curtis Hall, Room: 453

**Prerequisites:** MATH 122 (Minimum Grade: D).

**Course website:** All course information will be posted on Drexel Learn (Blackboard). Always check Drexel Learn for the most updated course information and assignments.

**Textbook:** *Probability and Statistics for engineering and the sciences*, by Jay L. Devore, 9th edition.

**Course objectives:** This is an introductory course on probability and statistics. Throughout the course, you are expected to acquire the knowledge and skills necessary to tackle practice problems and understand useful applications. Upon successful completion of this course, you should:

- Understand the concepts of probability, conditional probability, and independence;
- Master a number of counting techniques for solving probability problems;
- Understand the concepts of discrete and continuous random variables;
- Understand the meaning and importance of various specific distributions, such as: binomial, hypergeometric, Poisson, normal, exponential and Gamma distributions.
- Understand joint distributions.

**Homework:** Homework will be assigned and due every week. While you may work on the assignments with others, you *must* write your own independent solutions. Please refer to the course schedule at the end of this syllabus to see the homework assignments for each week.

**In-class quizzes:** There will be 4 in-class quizzes (20 minutes long), worth 10 points each. Your in-class quiz grade will be the total number of points obtained (40 possible) divided by 3. As a result, you can earn over 100% on your final quiz grade. There are no make-up quizzes. You must be present in your scheduled class to take the quiz.

**Exams:** There will be one midterm exam on October 27th (50 minutes long) and a comprehensive final exam (2 hours long).

An announcement about the exact coverage of the exam will be posted to Drexel Learn at least one week prior to the exam date. Make-up exams are only offered under extraordinary circumstances (documented in writing). Unless in the case of a medical emergency, requests to reschedule an exam must be made *in advance*. Exams may not be retaken for ANY REASON.

The final exam will be scheduled during the final exam week at the end of the term, with the exact date and time to be determined by the registrar. You are expected to take the exam at the time scheduled by the registrar.

**Grade policy:** Exams/Quizzes will be “closed book”, but you are allowed the use of a scientific calculator. No other electronic devices are permitted, and you may not discuss problems with others. Anyone found to be in violation of this rule will, at the very least, receive a grade of 0 on the assignment in question.

The course grade will be broken down as follows:

- Homework: 20%
- Quizzes: 15%
- Midterm exam: 30%
- Final exam: 35%

Based on these assessments, letter grades will roughly be assigned as follows:

A	B	C	D	F
90-100	80-89	70-79	60-69	0-59

Pluses or minuses may be attached to these grades at the discretion of the instructor.

**Tutoring services:** In addition to your instructor’s office hours, you can receive extra assistance in the Math Resource Center (MRC). The MRC is staffed by faculty and teaching assistants who can help you with your math courses. No appointment is necessary.

This Fall term, the MRC will be operating on a hybrid mode. There will be limited on-site capacity for the number of students to get face-to-face (FTF) help, and there will also be online help available. The time limit for a FTF session is 2 hours maximum for each student. If the maximum room capacity is reached, students can either wait or go online. For online help, you must register in advance at the following link:

<https://drexel.zoom.us/meeting/register/tZAkcemgpjgrH9e05JwSTA-SLLXcA792vQq0>

After registering, you will receive a confirmation email containing information about joining the meeting. MRC hours are Mon – Thu: 10:00 am – 7:00 pm; Friday, 10:00 am – 4:00 pm. Please email the MRC Coordinator, Sobha Philip, sp955@drexel.edu, with any questions or concerns.

**Masking etiquette:** As of August 3, 2021, *Drexel requires all students and employees to wear a mask* in all on-campus public and shared spaces, including instructional and research

settings, regardless of vaccination status. Specifically, masks are to be worn in classrooms, laboratories, lecture halls and seminar rooms. Students are not permitted to eat during class or otherwise remove their mask. If a student needs to remove their mask (to drink water etc.) they may step outside the class, to do so and then return to class. Please remember your mask to avoid class disruption.

More information about masking and up-to-date information about COVID-19 is available on the Drexel Response to Coronavirus website:

<https://drexel.edu/coronavirus/>

**Academic Honesty:** Academic Honesty should be maintained at all times. Any incidents of copying or cheating will result in a failing grade. Please refer to <http://www.drexel.edu/provost/policies/academic-integrity/> and [http://www.drexel.edu/provost/policies/academic\\_dishonesty.asp](http://www.drexel.edu/provost/policies/academic_dishonesty.asp) for the University's Academic Honesty policy.

**Disabilities and Accommodations:** Students requesting accommodations due to a disability at Drexel University need to present a current Accommodation Verification Letter (AVL) to faculty before accommodations can be made. AVLs are issued by the Office of Disability Resources (ODR). For additional information, visit the ODR website at <http://www.drexel.edu/oed/disabilityResources/students/>, or contact the Office for more information: 215-895-1401 (V), or [disability@drexel.edu](mailto:disability@drexel.edu)

**Course add/drop and withdrawal:** The last day to add/drop with Academic Advisor assistance is September 24th; and the deadline for course add/drop is September 26th at midnight. The course withdrawal period goes from the end of the course add/drop period through Friday of week 7 (November 5th). For additional details, see <https://drexel.edu/provost/policies/course-add-drop/> <https://drexel.edu/provost/policies/course-withdrawal/>

### Course Schedule:

Week	Sections & Homework assignments	Announcement
1	<b>Section 2.1:</b> 2, 9; <b>Section 2.2:</b> 17, 18	—
2	<b>Section 2.3:</b> 30, 35, 44; <b>Section 2.4:</b> 45, 60, 61	Quiz 1: Friday, Oct 1
3	<b>Section 2.5:</b> 71, 80, 87; <b>Section 3.1:</b> 6, 8	—
4(*)	<b>Section 3.2:</b> 12, 18, 24; <b>Section 3.3:</b> 30, 37, 38, 42, 43	Quiz 2: Friday, Oct 15
5	<b>Section 3.4:</b> 46, 50, 58	—
6	<b>Section 3.5:</b> 72	Midterm: Wed, Oct 27
7	<b>Section 3.6:</b> 85, 88, 90; <b>Section 4.1:</b> 2, 4, 6, 10	—
8	<b>Section 4.2:</b> 12, 18, 20, 22, 24; <b>Section 4.3:</b> 29, 30, 38, 48, 53	Quiz 3: Friday, Nov 12
9	<b>Section 4.4:</b> 61, 62; <b>Section 4.5:</b> 82	—
10(†)	<b>Section 5.1:</b> 2, 6, 9, 10, 12, 13	Quiz 4: Monday, Nov 22
11	<b>Section 5.2:</b> 22, 24, 27, 30, 31, 35, 36	—

(\*) October 11th: Indigenous Peoples' Day (University Holiday)

(†) November 24th - 28th: Thanksgiving Holiday

**Disclaimer:** Both the syllabus and grading scheme are tentative. I expect to follow them, but I reserve the right to make any changes if necessary during the term. Changes, if any, will be announced in class, by e-mail and/or posted on Drexel Learn.