## MATH-UA 233 - THEORY OF PROBABILITY

## SUMMER SEMESTER 2022

**Instructor:** Matteo Staccone **Time:** M-Tr 2:10pm-4:15pm

**E-mail:** ms9864@nyu.edu **Room:** Silv 208

## **Course Topics:**

- 1. Axioms of Probability
- 2. Conditional Probability
- 3. Random Variables
- 4. Discrete and continuous distributions
- 5. Independent random variables
- 6. Expectations
- 7. Limit Theorems
- 8. Advanced topics

Grading: Homework 10%, Midterm 40%, Final 50%.

**Textbook:** A first course in probability, Sheldon Ross (eight edition)

**Exams:** Midterm during class: date 06/20/2022 Final during class: date 07/05/2022

Office hours: After class Monday-Wednesday.

**Assignments:** There will be one or more weekly assignments. Collaboration is accepted, but each student must write up their own solutions in their own words. Late assignments will not be accepted. At the end of the semester, your lowest assignment grade will be dropped from your average. Solving problems is important! Doing exercises and understanding the assignments is the best way to master the material.

This class follows the Exam and Homework Policies of the university.