# Stat 315, Fall 2025

# Statistics I

Luc Rey-Bellet

### Instructor

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# **Class Meeting**

- Section 2: LGRC A203, MWF 12:20 PM -1:10 PM
- Section 4: LGRC A201, MWF 1:25 PM 2:15 PM

# Office hours

- W 3:00-4:00 PM in LGRT 1423 K or on **ZOOM**
- Th 11:00 AM-12:00PM in LGRT 1423 K or on **ZOOM**
- By appointment is always possible, and welcome, and/or ask your questions be email.

# **Syllabus**

Detailed class information are in the Class Syllabus

### **Basic Course information**

- There is a single canvas page common for all sections where you will submit your **hand-written** weekly homework and do your 5 quizzes.
- Homework is due on Thursdays at 11:59 PM except on the dates of the two midterms, Th October 9 and Th November 13.
- We use Piazza as a class forum and Gradescope for the exam.
- Grade: 25% homework, 25% quiz, 25% midterm, 25% final

| $\overline{\mathbf{A}}$ | A— | B+ | В  | В— | C+ | С  | С  | D + | D  | F    |
|-------------------------|----|----|----|----|----|----|----|-----|----|------|
| 93                      | 89 | 85 | 80 | 75 | 70 | 65 | 60 | 55  | 50 | < 50 |

# **Online Ressources**

#### Online Lectures by John Tsitsiklis

The lectures are conveniently split into short videos treating one single topic and are good for review.

### Class slides

The slides are continuously updated and you should use these links for the latest version.

- Slides00-Syllabus
- Slides01-Probability Basics
- Slides02-Counting
- Slides03-Conditional Probability
- Slides04-Conditioning and Bayes rule
- Slides05-Random variables and expected value
- Slides06-Functions of random variables and variance
- Slides07-Binomial random variables
- Slides08-Geometric and negative binomial random variables
- Slides09-Hypergeometric random variables
- Slides10-Poisson random variables

- Slides11-Continuous random variables
- Slides12-Uniform random variables
- Slides13-Normal random variables
- Slides14-Exponential and gamma random variables
- Slides15-Beta random variables
- Slides11-Joint discrete random variables: pdf and independence
- Slides12-Joint discrete random variables: covariance
- Slides17-Joint continuous random variables
- Slides18-Conditional expectation
- Slides19-Moment generating functions
- Slides20-Chebyshev inequality
- Slides21-Function of RV: CDF method
- Slides22-Function of RV: MGF method
- Slides23-Law of Large Numbers
- Slides24-Central Limit Theorem