

## The Department of Mathematics

2023–24–A term

**Course Name** Introduction to Probability and Statistics A

**Course Number** 201.1.9091

**Course web page**

<https://www.math.bgu.ac.il/en/teaching/fall2024/courses/introduction-to-probabi>

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**Office Hours** <https://www.math.bgu.ac.il/en/teaching/hours>

### Abstract

### Requirements and grading<sup>1</sup>

### Course topics

(1) Probability space.(2) Conditional probability, independent events, Bayes's theorem, complete probabilities.(3) Random discrete variable, discrete distributions: uniform, binomial, geometric, hypergeometric, negative binomial, Poisson.(4) Random continuous variable, continuous distributions: uniform, exponential, normal.(5) Random discrete two dimensional variable, independence of variables.(6) Mean, variance, correlation coefficient.(7) Chebyshev inequality, large numbers law.(8) Central Limit Theorem, normal approximation.

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<sup>1</sup>Information may change during the first two weeks of the term. Please consult the webpage for updates