

# The Department of Mathematics

2021-22-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/fall2022/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: unflorm, binomial, geometric, hypergeometric, negative binomial, Poisson.(4) Random continuos variable, continuos distributions: unflorm, 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.

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