The Department of Mathematics
2019–20–A term

Course Name  Probability For Computer Science

Course Number  201.1.2391

Course web page  https://www.math.bgu.ac.il/en/teaching/fall2020/courses/probability-for-computer-science

Lecturer  Prof. Ronen Peretz, <ronenp@bgu.ac.il>, Office 309

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

Requirements and grading

Course topics

Sample spaces and finite probability spaces with symmetric simple events, general probabilty spaces and the fields of events, the Borel field and probabilities on it defined by densities, conditional probabilities and independent events, random variables and their distribution functions (discrete, absolutely continuous, mixed), the expectation of a random variable (for discrete, absolutely continuous and general distribution), the variance of a random variable, random vectors and the covariance, independent random variables, the central limit theorem for i.i.d. random variables, examples related to analysis of simple algorithms, joint densities (discrete or continuous) with computation of the covariance and the marginal distributions, the weak law of large numbers.

3. B. Gnedenko, The theory of Probability, Chelsea 1967 (or Moscow 1982) in English; Russian origina titled 'A course in probability theory'.

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