אוניברסיטת
בן-גוריון בנגב

The Department of Mathematics

2017–18–A term

Course Name Probability For Computer Science

Course Number 201.1.2391

Course web page
`https://www.math.bgu.ac.il//en/teaching/fall2017/courses/probability-for-compute`

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

Abstract

Requirements and grading[1]

Course topics

Sample spaces and finite probability spaces with symmetric simple events, general probabilty spaces and the fields of events, the Borel filed 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.1. A.M. Mood, F.A. Graybill And D.C.Boes. Introduction To The Theory Of Statistics 3rd Edition, Mcgraw-Hill, 1974. 2. A. Dvoretzky, Probability theory (in Hebrew), Academon, Jerusalem, 1968.3. B. Gnedenko, The theory of Probability, Chelsea 1967 (or Moscow 1982) in English; Russian origina titled 'A course in probability theory".

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