אוניברסיטת
בן-גוריון בנגב

The Department of Mathematics

2024—25—A term

Course Name Introduction to Statistics A

Course Number 214.1.9421

Course web page
`https://www.math.bgu.ac.il//en/teaching/fall2025/courses/introduction-to-statist`

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

Abstract

Requirements and grading[1]

Course topics

.1 Descriptive statistics: organizing, processing and displaying data. .2 Sampling distributions: Normal distribution, the student t-distribution, Chi-Square distribution and Fisher's F-distribution .3 Estimation: A point estimate and Confidence Interval of population parameters: Mean variance and proportion. Tolerance interval. .4 Testing hypothesis about a population's parameters: Mean, variance and proportion. .5 Evaluating the properties of a statistical test: errors, signfiicance level and power of a test. .6 Testing hypothesis about equality of variances, equality of means and equality of proportions of two populations. .7 Testing for independence of factors: Normal and Chi-Square methods. .8 Testing for goodness of fit of data to a probabilistic model: Chi-Square test. .9 Linear regression: Inference about the utility of a linear regression model. Covariance and correlation coefficient. Confidence and prediction intervals. .10 Weibull distribution: estimating the distribution's parameters

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