NEAR EAST UNIVERSITY – COMMON COURSES COORDINATION UNIT

Department of Mathematics
Course Information Sheet & Course Outline

Course Code	Course Name	Credit	ECTS
MTH262	Statisitcs II	3	6

Pre-requisite: MTH261

Language: English	Course Type: Compulsory	Year: 2019/2020	Semester:Spring

Weekly Hours	Class Hours	Laboratory	Practicum	Learning Sessions			
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Learning Outcomes	After the completion of this course, the student will be able to ➢ Meaning of Statistics ➢ They can learn how to organise, group data and present it pictorially using bar chart, histogram, pie-chart e.t.c. ➢ How to find the mean, median and mode and their relationships ➢ How to find the range, variance, standard deviation and coefficient of variation ➢ Will some useful aspects of probability theory Will also know how to use the probability distributions like Binomial, Poisson, Hyper geometric, and normal distributions
Course Description	Sequences, Infinite series, Geometric series, The Integral test, The Comparison tests, Power series, Taylor and Maclaurin series, Lines and planes, Functions of several variables, Limits and Continuity, Partial Differentiation, Chain Rule, Tangent plane, Critical points, Global and Local Extrema, Directional Derivatives, Gradient, Divergence and Curl, Multiple integrals with applications, Triple integrals with applications, Triple integrals in Cylindrical and Spherical coordinates, Line-, Surface- and Volume Integrals, Independence of path, Green's Theorem, Conservative Vector Fields, Divergence Theorem, Stoke's Theorem**.**
Course Objectives	To analyse, process and present data
Textbooks and/or References	1 Introductory Statistics- Willey (2011), Prem. S. Mann
Course Content	1. Continuous random Variables and the Normal Distribution 2. Sampling Distribution, Sampling Error, and Nonsampling Errors 3. Mean and Standard Deviation of sample mean, Shape of the sampling distribution of sample mean 4. Applications of the sampling distribution of sample mean 5. Estimation, Point estimate, and interval estimate 6. Estimation of a population mean 7. Hypothesis tests about mean: An introduction 8. Hypothesis tests about mean: Standard deviation not known 9. Estimation and Hypothesis Testing: Two populations 10. Chi-Square Tests 11. Simple Linear Regression