

NEAR EAST UNIVERSITY – COMMON COURSES COORDINATION UNIT



Course Information Sheet & Course Outline

Department of mathematics

2021-2022 Fall Semester

Course Code MTH262	Course Name Statistics 2	Credit 3	ECTS 6			
Pre-requisite: MTH261						
Language: English		Course Type: Faculty core	Year: 2		Semester: 4	
Weekly Hours	Class Hours	Laboratory	Practicum	Learning Sessions		
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Course lecturer	Course lecturer: Assoc.Prof.Dr. Nuriye Sancar E-mail: nuriye.sancar@neu.edu.tr Web:	Office hours: Mon., Tuesday /15:00-16:00; Thursday: 10:00-11:00 Wed: 12:00-13:00(online)				
Learning Outcomes	After the completion of this course, the student will be able to <ul style="list-style-type: none"> - Familiarize students with a number of statistical techniques applicable to business problem solving - Apply the methodology in the workplace. Be better able to manage the statistical problem-solving processes. - Understand and be able to use basic estimation, testing, and regression methods. - Apply correctly a variety of statistical techniques, both descriptive and inferential. - Interpret, in plain language, the application and outcomes of statistical techniques. - Recognize inappropriate use or interpretation of statistics in other courses, in the media and in life in general and comment critically on the appropriateness of this use of statistics. 					
Course Description	This course introduces core business statistics and fundamental aspects of decision-making. It examines aspects of business and marketing with regards to basic statistical analysis. Students will be provided with the theoretical concepts, tools and methods of statistics as well as the opportunity to work through example problems.					
Course Objectives	The aim of this course is to familiarize students with the basic concepts and techniques in statistics. To enhance the analytical skills of students to interpret data and to produce information					

	for decision making in functional areas of business and economics. To help students think statistically and to motivate students to study further in areas of challenge offered by statistics.			
Textbooks and/or References	1	Mann, Prem S. Introductory statistics. John Wiley & Sons, 2007.		
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Course Content	Inferential Statistics Techniques: Statistical inference and estimation Introduction to hypothesis testing Further hypothesis tests and tests of independence Chi Square tests Correlation and regression			
Methods and Techniques Used in the Course	Face to face			
WEEKLY OUTLINE				
Week	Date	Topic	Activities	Reference
1		Introduction to the Course		
2		Sampling Distribution, Sampling Error, and Nonsampling Errors		
3		Mean and Standard Deviation of sample mean, Shape of the sampling distribution of sample mean, and Applications of the sampling distribution of sample mean		
4		Estimation, Point estimate, and interval estimate		
5		Estimation of a population mean with standard deviation known and Estimation of a population mean with standard deviation not known		
6		Hypothesis tests about mean: An introduction		
7		Hypothesis tests about mean: Standard deviation known and Hypothesis tests about mean: Standard deviation not known		
8		Review for Midterm exam		
9		Midterm Exam week		
10		Estimation and Hypothesis Testing: Two populations		
11		Estimation and Hypothesis Testing: Two populations (continuation)		
12		Introduction to Chi Square Tests (Independence and homogeneity tests)		
13		Chi Square tests (Goodness of fit test, and inferences about variance)		
14		Correlation and Simple Regression analysis		
15		Review for final exam		
16		Final Exam Week		
Attendance: Minimum 70 %				
Assessment Breakdown	Type		%	Reference/ Source
	1	Midterm exam 1	40	
	3	Final exam	60	
	4			

Learning Program					
Educational Tool	Amount	Student Work Load (Hours)	Educational Tool	Amount	Student Work Load(Hours)
			Total		
		Recommended ECTS Credit (Total Hours / 30):		180/30 = ~ 6	