POLS22207E Statistics for Social Sciences

Spring Semester 2024

Atik Valide Campus, A-215

Instructor
Prof. Dr. Lokman Gündüz
Contact Information
lgunduz@fsm.edu.tr
Office Hours
Wednesday 10am-12am. and by appointment.

Texts & Learning Materials

1. Quirk T.J. (2020), Excel 2019 for Business Statistics, Second Edition, Springer.

2. Groebner, D.F., Shannon, P.W. and Fry, P.C. (2018), Business Statistics A Decision-Making Approach, Tenth Edition Global, Pearson.

The class is based on lecture slides from Groebner et al.(2018). I will post the slides on LMS after each class. We will make use of MS Excel for practice sessions. Additional notes, slides, tutorials, videos, data, and readings will be posted via LMS for each session. You are responsible for all the material assigned, including the chapters of the textbooks above and the slides.

Course Description

The objective of the "Statistics for Social Sciences" course is to provide students with a solid foundation in statistical concepts and techniques, specifically tailored to the needs of social science research. The course aims to equip students with the skills to collect, analyze, interpret, and present data effectively, enabling them to make informed decisions and draw meaningful conclusions in various social science disciplines.

Learning Objectives

By the end of this course, students will be able to:

1. Define key statistical terms such as population, sample, variable, and distribution

2. Perform descriptive statistics to summarize and describe data distributions.

3. Use inferential statistics to draw conclusions about population parameters based on sample data.

4. Interpret statistical results to make informed inferences about social phenomena.

5. Think critically about quantitative information.

6. Use Excel in carrying out statistical applications.

Attendance I encourage you to attend the class regularly. I will not excuse you for material that was presented in class but you missed.

Grading Policy

Grading	Weight
Assignments in Excel (6 in total)	30%
Midterm Exam	30%
Final Exam (in Excel)	40%
Total	100%

Tentative Course Calendar Instructors reserve the right to alter course content and/or adjust the pace to accommodate class progress. Students are responsible for keeping up with all adjustments to the course calendar.

Week	Topic	Reading
1	Introduction	Slides Notes, Syllabus
2	Descriptive statistics	Relevant chapters from Groebner et.al and Quirk
3	Intro to Probability	Relevant chapters from Groebner et.al and Quirk
4	Discrete Probability Distributions	Relevant chapters from Groebner et.al and Quirk
5	Continuous Probability Distributions	Relevant chapters from Groebner et.al and Quirk
6	Estimation	Relevant chapters from Groebner et.al and Quirk
7	Midterm Exam	
8	Hypothesis Testing	Relevant chapters from Groebner et.al and Quirk
9	One group t-test	Relevant chapters from Groebner et.al and Quirk
10	Two group t-test	Relevant chapters from Groebner et.al and Quirk
11	Analysis of Variance	Relevant chapters from Groebner et.al and Quirk
12	Regression	Relevant chapters from Groebner et.al and Quirk
13	Multiple Regression	Relevant chapters from Groebner et.al and Quirk
14	Review and Wrap-Up	