MATH 306-STATISTICAL MODELLING-FALL-2020-2021

SABANCI UNIVERSITY

Instructor: Mustafa Oguz Afacan
E-mail: mafacan@sabanciuniv.edu
Office: FASS 1029
Course Assistants: TBA

Lectures: Wed: 8:40-10:30; and Friday: 8:40-9:30

Recitations: As indicated in the Student Information System.

COURSE OVERVIEW

This course aims to introduce students into the statistical modeling of random phenomena innatural, social or man-machine systems. The basic principles and techniques of statistical inference like estimation and hypotheses testing through the observed sample values will be studied in detail. This will followed by a discussion of selected topics from the linear models, regression and related inferential problems.

ONLINE TEACHING

Due to pandemic, all the lectures, recitations, and exams will be conducted online over Zoom. We will record each session, and the recordings will be posted on Sucourse and Google Drive so that students will have access to them anytime.

TEXTBOOK

It is not necessary to have a book. However, we follow the book below, and if you are planning to buy one, I would recommend it.

John E. Freund's Mathematical Statistics with Applications, Pearson-Princeton Hall, 2004

https://www.homerbooks.com/urun/john-e-freunds-mathematical-statistics-with-applications
(Homer's Online Sale Link)

GRADING

Midterm: %45

Final: %55

All the exams will be conducted online over Zoom. Each student will have to open webcam throughout the exams.

MAKE UP EXAMS

If a student misses an exam, then s/he has to have a medical report by Sabanci Medline covering the exam date. Otherwise, it will be counted as "zero." With that valid excuse, the missed midterm weight will be transferred to the final weight. That is, there will be no make-up exam for the midterm. If a student misses the final exam with a medical report by Sabanci Medline covering the exam date, then a make-up will be given for the final exam. Without that report, it will be counted "zero" whatsoever. No retake exam (Bütünleme) will be offered. Any student who misses both exams will receive "NA" whatsoever.

As the make-up will be harder than the regular final exam, students are strongly advised to treat themselves well in the final exam dates.

SCHOLASTIC DISHONESTY POLICY

The definition for scholastic dishonesty is given in the rules and regulations of the Sabanci University. In the case of scholastic dishonesty, no credits will be given for that particular work. Cheating during written work will result in an F for the course. All incidents of scholastic dishonesty will be reported to university for disciplinary action.

COURSE OVERWIEW

Topic 1: Sampling Distributions (Chapter 8)

Topic 2: Point Estimation (Chapter 10)

Topic 3: Interval Estimation (Chapter 11)

Topic 4: Hypothesis Testing (Chapter 12)

Topic 5: Tests of Hypothesis Involving Means, Variances, and Proportions (Chapter 13)

Topic 6: Regression and Correlation (Chapter 14)

.