IE 256
Statistics for Industrial Engineers
Spring 2020

Type:	Required
Credits/ECTS:	3 Credits / 6 ECTS
Class/Laboratory/PS schedule:	Tuesday 9:00-10:50 (M 1100)
	Thursday 9:00-10:50 (M 2230)
Instructor:	Refik Güllü (refik.gullu@boun.edu.tr)
Office Hours:	Tuesday 13:00-14:00, Thursday 13:00-14:00
Teaching assistant:	TBD
Prerequisite(s):	IE 255 (Probability for Industrial Engineers)

Course Description:

This course is organized to introduce the students to basic topics in parametric statistics; estimation, confidence intervals, and hypothesis testing; analysis of variance, regression and correlation analysis and goodness of fit tests. Elementary design of experiments and data collection and computer implementations using available up-to-date statistical software will be covered.

Textbook(s) / other required material:

Walpole, Myers, Myers, Ye: "Probability and Statistics for Engineers and Scientists", 9th ed., Prentice Hall, New Jersey, USA 2007.

Topics covered:
1. Review of Probability
2. Collecting Data, Summarizing and Exploring Data
3. Sampling Distributions of Statistics
4. Point estimation
5. Basic Concepts of Inference, Inferences for Single Samples, Two Samples, Proportion and Count Data
6. Hypothesis Testing
7. Regression Analysis
8. Elementary Design of Experiments, Analysis of Variance (ANOVA)
9. Nonparametric Statistics

Grading: Please mark your calendars!

Quiz 1:	10%	(Thursday, March 12, 2020)
Midterm:	30%	(Thursday, March 26, 2020)
Quiz 2:	10%	(Thursday, April 16, 2020)
Quiz 3:	10%	(Thursday, May 7, 2020)
Final:	40%	

Course page: Please check frequently. http://moodle.ie.boun.edu.tr/, enrollment key: stat2020