## MARMARA UNIVERSITY ISLAMIC ECONOMICS AND FINANCE INSTITUTE M. A. PROGRAMME

IEF 7007.1 ECONOMETRICS PROF. SADULLAH ÇELİK SPRING 2020

#### **COURSE OBJECTIVE**

Economics suggests important relationships, often with policy implications, but virtually never suggests quantitative magnitudes of causal effects. This course is focused on teaching methods for estimating causal effects using observational data, introducing methods for prediction including forecasting using time series data, emphasizing applications with theory used only as needed to understand the whys of the methods, evaluating the regression analysis in empirical economics papers in other courses and helping for some hands-on experience with regression analysis in textbook problem sets.

#### COURSE PLAN

1<sup>st</sup> Week: The Statistical Analysis of Economic (and related) Data 1 (Chps. 1-3)

2<sup>nd</sup> Week: The Statistical Analysis of Economic (and related) Data 2 (Chps. 1-3)

**3<sup>rd</sup> Week:** Linear Regression with One Regressor (Chp. 4)

4<sup>th</sup> Week: Regression with a Regressor: Hypothesis Tests & Confidence Int. (Chp. 5)

**5<sup>th</sup> Week:** Linear Regression with Multiple Regressors (Chp. 6)

6<sup>th</sup> Week: Hypothesis Tests and Confidence Int. in Multiple Regression (Chp. 7)

7<sup>th</sup> Week: Review

### Midterm Week: 4 questions from Chapters 1-7.

9<sup>th</sup> Week: Nonlinear Regression Functions (Chp. 8)

**10<sup>th</sup> Week:** Assessing Studies Based on Multiple Regression (Chp. 9)

**11<sup>th</sup> Week:** Regression with Panel Data (Chp. 10)

12<sup>th</sup> Week: Regression with a Binary Dependent Variable (Chp. 11)

**13<sup>th</sup> Week:** Instrumental Variables Regression (Chp. 12)

14<sup>th</sup> Week: Experiments and Quasi-Experiments (Chp. 13)

15<sup>th</sup> Week: Introduction to Time Series Regression and Forecasting (Chp. 15)

16<sup>th</sup> Week: Estimation of Dynamic Causal Effects (Chp. 16)

FINAL: 4 questions from Chapters 1-13, 15-16

# <u>TEXTBOOK</u>

**Stock, J. H. and M. W. Watson. (2020).** Introduction to Econometrics, 4<sup>th</sup> Edition, Global Edition, Pearson.

### <u>GRADING</u>

One midterm (Date to be announced) 40 %

One final (Date to be announced) 60 %

SÇ / Spring 20