Econometría II

Sexto semestre Licenciatura en Economía 2022-2026 (Spring 2025) Dr. Edwin van Gameren

Econometrics II continuous where Econometrics I finished. After the general principles of the multiple regression models, extensively discussed in Econometrics I, the current course is focused on regression models applicable in particular situations based on the research questions and on the type of data that is available. In particular, we will see the basics of time series models, models for panel data, instrumental variable and simultaneous equations models, and – if time permits – models for qualitative and limited dependent variables.

Classes will focus on the theory, while the accompanying *laboratorios* will focus on the practical estimation using *Stata* and the interpretation of the obtained results. The lab classes are an integral and mandatory part of the course.

Bibliography (mandatory)

The course will closely follow the following books:

- Wooldridge, Jeffrey M. (2012,1016,2020). Introductory Econometrics: A Modern Approach, 7th ed., South-Western College Pub.
- Hill, R. Carter, William E. Griffiths, Guay C. Lim (2012). Principles of Econometrics, 4th Edition, Wiley

Bibliography (optional, recommended)

- Lee C. Adkins, Hill, R. Carter (2012). Using Stata for Principles of Econometrics, 4th Edition, Wiley
- Stock, James H. Mark W., Watson (2010). Introduction to Econometrics, 3rd Edition, Addison-Wesley.
- Gujarati, D.M. (2002). Basic Econometrics, 4th Edition, McGraw Hill.
- Greene, William H. (2012). Econometric Analysis, 7th edition, Pearson.
- Angrist, Joshua D., Jörn-Steffen Pischke (2015). Mastering Metrics, Princeton UP.
- Kennedy, Peter (2008). A Guide to Econometrics, 6th Edition. Wiley-Blackwell
- Abbring, Jaap, Peter Boswijk, Philip-Hans Franses (2016). Canon deel 23: econometrie. *Economisch-Statistische Berichten*, vol. 101, pp. 106-111

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Class hours

- Tuesday and Wednesday, 12:30 14:00.
- Office hours with appointment; office: 4487. Email egameren@colmex.mx.
- Laboratoristas: Fernando García Mora; Daniel de Jesús Sánchez Kelly.
 Wednesday 09:30 11:00 (tentatively).

Teaching language will be English, though you may use English, Spanish, Dutch, or German to communicate with me (I won't reply in German, though). I imagine the lab classes will be in Spanish.

Program (tentatively)

| | Topic | Wooldridge | Hill et al. |
|----|--|------------|-------------|
| 1 | Brief review of the linear regression model (Econometría-I) | 2 – 8 | 1-8 |
| 2 | Issues on Model Specification and Data | 9 | 6, 10 |
| 3 | Basic Regression Analysis with Time Series Data | 10 | 9, 12 |
| 4 | Further issues in Using OLS with Time Series Data | 11 | 9, 12 |
| 5 | Serial Correlation and Heteroskedasticity in Time Series Data | 12 | 9, 12, 14 |
| 6 | Advanced Time Series Topics | 18 | 12, 13 |
| 7 | Pooling Cross Sections across Time: Simple Panel Data Models | 13 | 15 |
| 8 | Advanced Panel Data Models | 14 | 15 |
| 9 | Instrumental Variable Estimation and Two Stage Least Squares | 15 | 10 |
| 10 | Simultaneous Equations Models | 16 | 11 |
| 11 | Limited Dependent Variable Models and Sample Selection Corrections | 17 | 16 |
| | if time permits— | | |

Evaluación (tentativa)

- Participación en clase (10%)
- Tareas (25%)
- Un examen parcial (25%)
- Examen final (40%)

Todo acto de deshonestidad académica constituye una falta grave y, como tal, derivará en la no acreditación de la materia. Adicionalmente, el caso será sometido a la consideración de la Junta de Profesores del Centro de Estudios Económicos.