

Curso Académico: (2023 / 2024)

Fecha de revisión: 24-05-2023

Departamento asignado a la asignatura: Departamento de Economía

Coordinador/a: DELGADO GONZALEZ, MIGUEL ANGEL

Tipo: Obligatoria Créditos ECTS : 6.0

Curso : 2 Cuatrimestre : 2

REQUISITOS (ASIGNATURAS O MATERIAS CUYO CONOCIMIENTO SE PRESUPONE)

Matemáticas para la Economía I
Matemáticas para la Economía II
Estadística I
Estadística II
Principios de Economía
Microeconomía

COMPETENCIAS Y RESULTADOS DEL APRENDIZAJE

- Efectuar inferencias sobre los parámetros de una población
- Entender los conceptos básicos del contraste de hipótesis
- Interpretar y aplicar los conceptos del análisis de regresión lineal
- Desarrollar los métodos anteriores usando software estadístico

OBJETIVOS

The course has two objectives. On the one hand, understand the interpretation and all the methodological aspects of estimating causal relationships between variables in different contexts. This includes the interpretation of causal relationships in linear and non-linear in variables models. And also includes learning the fundamentals of inferences based on least squares. On the other hand, the student will be able to make inferences in the studied models using real data with the help of the GRETL program. The student will be examined for each and every one of these aspects.

Students must come to class with a laptop on which GRETL must be installed.

GRETL free software is the fundamental learning tool. The different concepts are discussed in the context of case studies in Social Sciences using real data.

This course provide a working knowledge on modelling causal relations in social sciences using the linear in parameters model. Fundamental tools are inferences on the parameters using least squares.

A very important aspect of the course consists of using Econometrics software packages. The most used in class is GRETL, but we also use E-Views. It is essential that the student has a personal computer with at least GRETL installed. The midterms exams, and possibly the final, require using GRETL. Students must attend all classes, both magistral and reduced, with their personal computers.

At the end of the course, the student will acquire a good working knowledge on the interpretation of the linear regression model, discriminating between alternative specifications by means of statistical inference, and using GRETL for estimation and hypothesis testing.

DESCRIPCIÓN DE CONTENIDOS: PROGRAMA

Este curso ofrece una introducción al análisis de datos en Ciencias Sociales mediante el modelo de regresión lineal múltiple. Se enfatiza la interpretación del modelo y la aplicación de técnicas de inferencia estadística sobre el mismo con el objeto de resolver casos relevantes en la práctica. El curso discute con detalle la realización de inferencias en circunstancias no estándar, de especial relevancia en Ciencias Sociales, provocadas por la naturaleza de las variables utilizadas en el modelo (cualitativas, transformadas para permitir relaciones no-lineales o no-observables), o por la naturaleza de los datos.

El curso sigue el texto de Stock y Watson (2012) capítulos 1 al 12. Este es el programa detallado de la asignatura:

1. La naturaleza de la Econometría y la naturaleza de los datos económicos (SW Cp. 1, 2 & 3)
2. El modelo de regresión simple (SW Cp. 4,5)
3. Análisis de regresión múltiple: estimación (SW. Cp. 6)
4. Análisis de regresión múltiple: inferencia (SW Cp. 7)
5. Regresión no-lineal utilizando regresión lineal múltiple (SW. Cp. 8)
6. Elección discreta (SW. Cp. 11)
7. Estimación por variables instrumentales y mínimos cuadrados en dos etapas (SW. Cp. 12)

ACTIVIDADES FORMATIVAS, METODOLOGÍA A UTILIZAR Y RÉGIMEN DE TUTORÍAS

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Students must come to class with a laptop on which GRETTL must be installed.

GRETTL free software is the fundamental learning tool. The different concepts are discussed in the context of case studies in Social Sciences using real data.

Students must attend class with a laptop on which GRETTL must be installed.

The midterm exam will be done with the laptop and will require modelling of relevant causal relationships in the social sciences, as well as making statistical inferences about them, using real databases with the help of GRETTL.

SISTEMA DE EVALUACIÓN

Continuous Evaluation:

40%: 1 midterms.

Peso porcentual del Examen Final:	60
Peso porcentual del resto de la evaluación:	40

BIBLIOGRAFÍA BÁSICA

- Goldberger, A.S. Introducción a la Econometría, Ariel, 2001
- Greene, W.H. Análisis Econométrico, Prentice Hall, 1998
- Gujarati, D.N. Econometría, McGraw-Hill, 2010
- Stock, J.H. & M.W. Watson Introduction to Econometrics, Addison Wesley, 2012
- Wooldridge, J.M. Introducción a la Econometría: un Enfoque Moderno, Paraninfo Thompson Learning, 2003

BIBLIOGRAFÍA COMPLEMENTARIA

- Hayashi, F. Econometrics, Princeton University Press, 2000
- Wooldridge, J.M. Econometric analysis of cross section and panel data , The MIT Press, 2009