MOD. I - QUANTITATIVE METHODS

Course Title: **Econometrics**

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Course Overview:

- Simple linear regression: estimation, inference, goodness of fit
- Analysis of Variance (ANOVA)
- Multiple linear regression with cross-sectional data: estimation, inference, asymptotics, heteroskedasticity, multicollinearity, model selection, instrumental variables, and two-stage least squares
- Logit and Probit models: estimation, inference, classification error, ROC curve, model selection
- Autocorrelation: Durbin–Watson test; autoregressive model AR(1)

Course Content:

The course provides an introduction to econometric models and techniques for analysing social and economic datasets. It introduces the modelling of economic and management variables using regression and multivariate methods, with an emphasis on applications in business, marketing, and economics.
In particular, the course presents models for the analysis of dependence, including linear regression, ANOVA, autoregressive models, and logit and probit models.

Duration: 21 hours

Exam: Written test. The exam consists of multiple-choice and open questions covering both practical and theoretical aspects. Students are not allowed to consult any materials or other sources of information (including notebooks, laptops, dictionaries, or mobile phones) during the exam.

Suggested Reading:

Maddala G.S., *Introduction to Econometrics*, 2nd ed., Macmillan Publishing Company
or
Wooldridge J. M., *Introductory Econometrics: A Modern Approach*, 4th ed., South-Western, Cengage Learning