



Course: Econometrics II

Faculty: Michael Creel

Term: Second semester

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Office Hours: upon request

Description: This is the second half of the required introductory course in econometrics. Prerequisites are a good command of linear algebra, optimization, probability and statistics, and the first half of the course.

Objective: The objective of this course is to familiarize students with the most common statistical methods in econometrics. We will study the maximum likelihood and GMM estimators in detail, and then review basic time series models, and some topics in econometrics. Students will also acquire a working knowledge of statistical packages (one or more of Matlab, Stata, Julia, GRETL, etc.)

Outline:

5. Extremum estimation and numerical optimization
6. Maximum likelihood and asymptotic testing
7. Generalized method of moments
8. Introduction to time series analysis
9. Topics in econometrics
 - a. Panel Data
 - b. Quantile regression
 - c. Bayesian methods
 - d. Simulation-based estimation
 - e. Nonparametric methods

References:

- * my lecture notes: <https://github.com/mcreel/Econometrics>
- * recommended text: Cameron, A.C. and P.K. Trivedi, *Microeconometrics - Methods and Applications*
- * other appropriate texts are mentioned in my notes

Grading:

- 4 problem sets (30%)
- final exam (70%)