

M.Sc. Economics

Code:	017.913	Type:	M.Sc. 2010 – 2012, 2 nd year, fall 2011
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Title:	Econometrics II
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Lecturer:	Robert Kunst
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ECTS:	7	Contact hours (per term):	40
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Semester:	Fall 2011	Frequency of the lecture:	Twice a week
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Dates:	September 27, 2011 until December 21, 2011
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Prerequisites:	Some familiarity with linear regression and statistical methods
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Learning objectives (What are the intended learning outcomes? Which skills will be acquired?):

Participants will develop a thorough understanding of linear time-series analysis and its main models: univariate ARMA as well as multivariate VAR models including their error-correction variants. They will be able to apply linear time-series models to data.

Content (Which professional competence and which contents will be imparted?):

- Basic concepts of time-series analysis: stochastic processes, stationarity, autocorrelation function, spectral analysis.
- Linear univariate models: AR and MA models, ARMA models.
- Unit roots and integrated processes: order of integration, unit-root tests, persistence.
- Linear multivariate models: vector autoregressions (VAR), impulse response functions.
- Cointegration and error correction: cointegrating regression, Engle-Granger two-step method, Johansen's method.

Teaching approach (Description of the learning and teaching methods):

Lectures and projects

Workload (Definition of workload (ECTS), divided in pre-modules (e.g. pre-readings), core-modules (contact hours), post-modules (e.g. case studies)):

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Language of instruction (Information on the language of teaching):

English

Obligatory literature (E.g. scripts, books, articles, cases, papers):

Set of lecture notes

Additional literature (E.g. books, articles, cases, papers):

Brockwell, P.J., and Davis, R.A.: Time series analysis, Theory and Methods. Springer, 1991.
Johansen, S.: Likelihood-Based Inference in the Cointegrated Vector Autoregressive Model. Oxford, 1995.

Mode of examination (Mode of the examinations and tests (e.g. oral or written examination, lecture, homework, papers, class participation):

Written examinations, project papers, homework.

Grading:

Two written tests carry a weight of 80% in the final grade (midterm 30% and finals 50%), the homework and project papers 20%.

Special features (E.g. excursion, guest speaker):

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Contact information:

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Office hours:

To be announced

Course website:

<https://cecnet.tuwien.ac.at/>