## Module title

**Econometrics 2**  
**Abbreviation**  
12-M-OE2-141-m01

## Module coordinator

holder of the Chair of Econometrics

## Module offered by

Faculty of Business Management and Economics

## ECTS

<table>
<thead>
<tr>
<th>Method of grading</th>
<th>Only after succ. compl. of module(s)</th>
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<tbody>
<tr>
<td>5 numerical grade</td>
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## Duration

<table>
<thead>
<tr>
<th>Module level</th>
<th>Other prerequisites</th>
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<tr>
<td>1 semester</td>
<td>graduate</td>
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## Contents

### Description:

This module deals with the basics, concepts and methods of the generalised least squares (GLS) framework. Partly as a motivation for the GLS model and partly for its own right, different specification and data problems as well as violations of model assumptions of the OLS estimator (as introduced in "räkonometrie I" ("Econometrics I")) are discussed. This includes multicollinearity, a test for structural breaks, heteroskedasticity and autocorrelation. Linear algebra is used as formal aid.

### Outline of syllabus:

1. Specification analysis  
2. Multicollinearity  
3. Heteroskedasticity  
4. Autocorrelated disruptive terms  
5. Generalised least squares (GLS)

### Intended learning outcomes

Students acquire essential knowledge of the fundamentals, methods and concepts for estimating the generalised linear regression model (GLS) and can apply and interpret it. They are sensitized for specification problems, data problems and violations of the assumptions of the classical linear model (OLS) so that they are able to recognize, to assess and therefore adequately deal with these problems in theory and practice. This enables them to critically assess the use of the Estimation methods in scientific work and to work independently on adequate implementation of empirical analyzes to answer selected (economic) scientific issues if available data with the above-mentioned Involve problems. The competences acquired in this course serve as a prerequisite for "Econometrics III", "Microeconometrics" und "Financial Econometrics".

### Courses

(V + Ü (no information on SWS (weekly contact hours) and course language available)

### Method of assessment

(a) written examination (60 minutes) or b) term paper (approx. 15 pages)

Language of assessment: German, English

creditable for bonus

### Allocation of places

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### Additional information

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### Referred to in LPO I

(examination regulations for teaching-degree programmes)

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### Module appears in

- Master’s degree (1 major) Business Management (2014)
- Master’s degree (1 major) Economics (2014)