

Module title		Abbreviation
Econometrics 1		12-M-OE1-182-mo1
Module coordinator		Module offered by
Holder of the Chair of Econometrics		Faculty of Business Management and Economics
ECTS	Method of grading	Only after succ. compl. of module(s)
5	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	graduate	--
Contents		
<p>Description:</p> <p>This module deals with the basic concept and methodology of the ordinary least squares (OLS) regression model. In particular, model assumptions and properties are discussed and formally motivated. In addition, the module examines linear restrictions on the model's explanatory variables as well as dummy variables and introduces tests to verify simple and multiple linear restrictions.</p> <p>Linear algebra is used as formal aid.</p> <p>Outline of syllabus:</p> <ol style="list-style-type: none"> 1. Random variables 2. Important distributions 3. Point estimates 4. Simple linear regression model 5. Model assumptions 6. Model properties 7. Simple hypothesis tests 8. Multiple linear regression model 9. Linear restrictions 10. Dummy variables 11. Multiple hypothesis tests 		
Intended learning outcomes		
<p>The students acquire knowledge of the basics, concepts and methods used in the classical linear regression model and understand the role of econometrics in science and data analysis. In particular, they learn how to analytically derive, calculate and interpret the coefficients, standard errors and p-values of a classic regression output of the multiple regression model. Furthermore, they are able to formally state and motivate the assumptions and properties of OLS and know how to deal with transformed and dummy variables. Additionally, students will be able to test multiple linear restrictions on the parameters and will be able to apply these tests to real economic, business and social science questions.</p> <p>The competences acquired in this course serve as a prerequisite for "Econometrics II", "Econometrics III", "Microeconometrics" und "Financial Econometrics".</p>		
Courses (type, number of weekly contact hours, language – if other than German)		
V (2) + Ü (2) Module taught in: German (winter semester), English (summer semester)		
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
a) written examination (approx. 60 minutes) or b) term paper (approx. 15 pages) Language of assessment: German and/or English creditable for bonus		
Allocation of places		
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Additional information

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Workload

150 h

Teaching cycle

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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) Management (2018)
 Master's degree (1 major) International Economic Policy (2018)
 Master's degree (1 major) China Business and Economics (2019)
 Master's degree (1 major) China Language and Economy (2019)
 Master's degree (1 major) Information Systems (2019)
 Master's degree (1 major) China Business and Economics (2021)
 Master's degree (1 major) China Language and Economy (2021)
 Master's degree (1 major) Economathematics (2021)
 Master's degree (1 major) Information Systems (2022)
 Master's degree (1 major) International Economic Policy (2022)
 Master's degree (1 major) Management (2022)
 Master's degree (1 major) Economathematics (2022)
 exchange program Business Management and Economics (2022)