Courses in English
Course Description

Department	10 Business Administration
Course title	**Regression Models**
Course number	
Hours per week (SWS)	4
Number of ECTS credits	5
Course objective	After completing this module, which is taught in English, students will be able to apply advanced inferential statistical methods from the field of regression analysis to practical research questions and to interpret the results in relation to specific application contexts. Regression models are introduced and discussed using an English-language manga, which provides a practice-oriented and accessible approach to the methodological content. The application of regression methods and the interpretation of their results are demonstrated and practised in integrated exercise sessions using the statistical software R. The course is designed to be practice-oriented and is conducted without traditional lecture slides. Instead, students actively engage with examples, data sets, and applied exercises. Students work on statistical problems with a business-related context and discuss different methodological approaches. In this way, they develop a deeper understanding of the diverse applications of regression models and recognise their value for the data-driven analysis and solution of business-related problems.
Prerequisites	none
Recommended reading	Takahashi, S., Inoue, I., Trend-Pro Co., Ltd. (2016): The Manga Guide to Regression Analysis. No Starch Press. Fahrmeir, L., Kneib, T., Lang, S., Marx, B. D. (2021): Regression: Models, Methods and Applications. Springer.
Teaching methods	Seminar-based teaching Self-directed learning Communication of results Group work based on practical examples
Assessment methods	schrP 50 % und ModA 50 %. oder schrP 50 % und Präs 50 %. oder schrP 50 % und mdlP 50 %. oder ModA 50 % und Präs 50 %. oder ModA 50 % und mdlP 50 %. oder mdlP 50 % und Präs 50 %. oder schrP 50 % und schrP 50 %. oder ModA 50 % und ModA 50 %. oder Präs 50 % und Präs 50 %. oder mdlP 50 % und mdlP 50 %.
Language of instruction	English
Name of lecturer	Prof. Dr. Julia Kopf
Email	
Link	https://nine.hm.edu/ModuleDescription/Semester?moduleId=26a4314c-8175-ed11-91f4-0050568f928d&semId=2bf6dc8e-9a07-e811-94bf-00155d6e6b0a
Course content	Simple regression model, multiple regression model OLS estimator, ML estimator, tests, prediction Linear regression models with main effects and interactions Generalized linear regression models for binary target variables and count data
Remarks	