Econometric Essentials for Applied Empirical Research M.Sc.

ECTS-Credits	6
Workload Hours	Contact Hours: 60 Independent Study: 120
Duration	1 Semester
Cycle	WS
Recommended for this semester or higher	1
Language	English
Course Type/ Learning Methods	Lecture (2 SWS) and tutorial (2 SWS) / Oral participation, independent study, literature study
Course Work	--
Method of Assessment	Written exam (60 minutes) - 6 ECTS Credits / 100% of module grade
Prerequisite for	---
Prerequisites	---
Person Responsible	Dr. rer. oec. Matthias Ritter

This module can be taken as part of the following programs/areas:

PO 2023 (all newly enrolled students and students switching exam regulations)

Accounting and Finance	Elective Studies
Data Science in Business and Economics	Free Elective Studies
Economics	Specialization Studies Economics, Econometrics, Finance, Free Elective Studies
Economics and Finance	Free Elective Studies
European Economics	Core Studies Econometrics, Free Elective Studies
European Management/ General Management/ International Business	Specialization Econometrics Core Module, Free Elective Studies
Management & Economics	Specialization Studies, Free Elective Studies

Content

This module is a practical course specifically designed for students who are either new to econometrics or seeking to refresh their existing knowledge. It covers the essential steps of conducting empirical research using real-world data, emphasizing practical applications over theoretical details. Students will be introduced to fundamental econometric concepts, such as regression analysis, hypothesis testing, and result interpretation. Through a variety of practical examples and exercises, the course provides a hands-on approach to learning, equipping participants with the necessary skills to understand scientific papers and apply econometric techniques to analyze economic relationships.

The following topics are covered:

- Linear regression model
- Violation of assumptions
- Qualitative dependent variables

- Times series analysis
- Panel data analysis

Objectives

The primary objectives of this course are to provide students with a foundational understanding of econometrics and to develop their ability to conduct empirical research using real-world data. The course aims to familiarize students with key econometric methods, while focusing on practical applications. By the end of the course, participants will be able to interpret econometric results, critically evaluate scientific research, and apply econometric techniques to investigate economic relationships.