LMU LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

LMU MUNICH SCHOOL OF MANAGEMENT

INSTITUTE FOR MARKETING

Syllabus Marketing Analytics Summer Term 2025

Course Title: Marketing Analytics

Prerequisite: None

Course Schedule: Lectures are scheduled between 12:00 and 14:00 (c.t.) on Tuesdays. Tutorials will be held between 14:00 and 16:00 (c.t.) on Tuesdays and Wednesdays.

Course Length: 24 lecture hours (2h/week) / 24 tutorial hours (2h/week) / 6 ECTS

Course Language: English

Course overview: This course provides an introduction to the systematic creation of consumer insights based on large structured and unstructured data that consumers generate in their journey across different channels and touchpoints with companies (e.g., ratings, reviews, web clickstream data, transactions). Students learn about different sources and types of data and about collecting, verifying, and using data for enhanced marketing decision-making. In particular, the course presents a portfolio of tools and techniques that decision-makers can use to prepare and transform different data types into adequate information to support marketing decisions. Students' work will be application-oriented, as they will analyze business cases and (real) datasets by using Python.

Course Structure:

- Sources and types of data
- Modeling types: Supervised and unsupervised learning
- Seven-step marketing analytics process
- Big data in marketing
- Data quality, preparation, and transformation
- Regression analysis
- Automated machine learning
- Customer mindset metrics
- Neural networks
- Generative AI
- Market basket analysis
- Cluster analysis
- Natural language processing
- Social network analysis

Course Objectives: After attending the course, students will be able to understand the relevance of marketing analytics in today's business environment, execute marketing analytics projects, understand the importance of and assess data quality, have an overview of basic and more advanced marketing analytics techniques, run various methods using different computer programs, and evaluate and interpret essential methods of marketing analytics and their results.

Grading: 100% final exam (120min)

Suggested Readings:

- Hair, J. F., Harrison, D. E., & Ajjan, H. (2021). Essentials of marketing analytics (1st ed.). New York: McGraw-Hill.
- Yildirim, G., & Kübler, R. (2023). Applied marketing analytics using R (1st ed.). SAGE Publications Limited.

Additional literature includes:

- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). A primer on partial least squares structural equation modeling *(PLS-SEM)* (3rd ed.). Thousand Oaks: SAGE.
- Sarstedt, M. & Mooi, E. A. (2019). A concise guide to market research. The process, data, and methods using IBM SPSS Statistics (3rd ed.). Berlin: Springer.