

Syllabus

Course Title:		
Marketing Analytics		
Responsible:		
Prof. Dr. Lucas Stich		
Programme:	Term:	ECTS:
Master	Summer	5
Contents & Objectives:		
<p>Contents:</p> <p>Marketing analytics involves the collection, management, and analysis of data to gain insights into the performance of marketing activities. In fact, it is increasingly possible to use data analysis to inform, make, and even automate marketing decisions. The goal of this course is to provide students with a hands-on understanding of key methods and specific techniques used in marketing analytics. This requires substantive knowledge in marketing as well as of fundamental ideas at the intersection of statistics, economics, psychology, and computer science.</p> <p>The course will cover fundamentals of data science, including data wrangling and data exploration, and will then turn to applied, real-world marketing analytics problems such as marketing mix modeling, market segmentation, and measuring preferences and demand. Emphasis will be placed on data visualization and valuable methods for causal inference in marketing. The course will also delve into a few advanced marketing topics. To provide a hands-on learning experience, the course will include practical applications of the covered content using the R programming language.</p>		
Prerequisites:		
Solid background in marketing, information systems, microeconomics, and statistics		
Learning objectives:		
<ul style="list-style-type: none"> • Understand key methods and techniques used in marketing analytics and how to apply them to real-world problems • Learn to identify the appropriate analytical methods to use for specific marketing problems • Develop proficiency in data wrangling and data exploration techniques • Develop skills in data visualization and interpretation to effectively communicate marketing insights • Gain hands-on experience with the R programming language and apply it to solving marketing analytics problems 		
Literature:		
<p>This course does not have a set textbook. Instead, it draws on various sources, some of which are listed below. You are not required to purchase or read any of these books to complete the course. However, I strongly encourage you to refer to these excellent sources as needed. In fact, many of them can be accessed online for free. Specific literature will be provided in the lecture notes.</p> <ul style="list-style-type: none"> • R for Marketing Research and Analytics (Chris Chapman and Elea McDonnell Feit) • R for Data Science: Import, Tidy, Transform, Visualize, and Model Data (Hadley Wickham and Garrett Grolemund) • An Introduction to Statistical Learning: with Applications in R (Gareth James, Daniela Witten, Trevor Hastie, and Robert Tibshirani) 		

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<ul style="list-style-type: none">• Data Visualization: A Practical Introduction (Kieran Healy)• Fundamentals of Data Visualization: A Primer on Making Informative and Compelling Figures (Claus O. Wilke)• Causal Inference: The Mixtape (Scott Cunningham)• The Effect: An Introduction to Research Design and Causality (Nick Huntington-Klein)
Grading:
Final exam (60 minutes)
Contact:
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