

Module description Marketing Conception & Data Mining

Identifier	Category	Details / Content
General Information		
1.1	Module name	Marketing Conception & Data Mining
1.2	Contained courses	a) Marketing Conception b) Data Mining
1.3	Module code	MSB.2.0076.0.V.1 (Data Mining) MSB.2.0076.0.V.2 (Marketing Conception)
Timing		
2.1	Frequency of offer	Winter semester
2.2	Attend in which semester	in 1st. semester (for first semester students) in 2nd. Semester (for second semester students) Incoming students
Link to study programs		
3.1	Offered in study program	Master International Marketing and Sales
3.2	Mandatory courses in module or Electives	Mandatory
Workload		
4.1	Lecture form	Seminar lessons
4.2	Contact time a) Marketing Conception	2 semester weekly hours = 30 hours per semester
	Contact time b) Data Mining	2 semester weekly hours = 30 hours per semester
4.3	Self-study time a) Marketing Conception	60 hours per semester
	Self-study time b) Data Mining	60 hours per semester
4.4	Total workload	180 hours
4.5	Workload in credits	6 ECTS
Intended learning outcomes & learning content		
5.1	Goal of the Module "Marketing Conception & Data Mining" is to convey to the students the integral considerations of marketing and qualitative as well as quantitative marketing methods. Here the students recognize that market orientation is an essential component of the whole value creation process and draws a continuous bow from the goals via the strategies to the marketing mix.	
Intended learning outcomes General Method Expertise		
5.1	ILO MCDM 1	Graduates have the ability to apply the acquired subject-specific insights to praxis problems.
	ILO MCDM 2	Graduates are able to reflect critically for which problems and under which conditions, which subject specific methods and systems can be used.

Contribution of module ILOs to study programme ILOs

(only most relevant contribution is highlighted)



A1: apply knowledge and take decisions



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	ILO MCDM 3	Graduates are able to present their solutions in an accurate and structured form.	➔	S1: manage effectively intercultural communication
Intended learning outcomes a) Professional Expertise Marketing Conception				
5.1	ILO MCDM 4	Graduates are able to portray the process-oriented analysis of a marketing conception.	➔	K1: effectively acquire knowledge in international marketing & sales
	ILO MCDM 5	Graduates are able to situation-adequately create a marketing conception in domestic and international environments, consisting of marketing objectives, strategies and measures and to link the individual marketing levels with each other in an coordinated overall process.	➔	A1: apply knowledge and take decisions
	ILO MCDM 6	Graduates are able to reflect critically on the fact that short-termed measures are not purposeful and that these measures should always be evaluated against the background of the company objectives and strategies.	➔	A1: apply knowledge and take decisions
	ILO MCDM 7	Graduates are able to choose specialized marketing instruments for the solution of strategic problems in the marketing sector taking into account sectorial characteristics and to analyze them critically with regard to their effectiveness.	➔	A2: plan, then act target-oriented to solve real business problems
Intended learning outcomes b) Professional Expertise Data Mining				
5.1	ILO MCDM 8	Graduates are able to assess empirical research methods, formulate survey questions and structure data-mining projects, extract database based (mass) data, transform and explore with methods of data mining especially Multivariate Statistics and Machine Learning using Standard Software for the solution of optimization problems under restrictions in the marketing sector.	➔	K2: think analytically, and critically
	ILO MCDM 9	Graduates are able to work independently on data-mining case studies based on software-tools and to assess the results and the approach critically.	➔	D1: apply digital competences for virtual work
	ILO MCDM 10	Graduates are able to translate the results of an analytical investigation into actionable strategic and tactical business decisions. They are able to summarize a data mining project and its outcomes and implications in written form.	➔	A2: plan, then act target-oriented to solve real business problems
Learning content a) Marketing Conception				
	Learning content 1	Introduction		

5.2	Learning content 2	Conception level: marketing target o Target programs o Target deriving and target relationships and interdependencies o Target system
	Learning content 3	Conception level: marketing strategies o Definition of strategic target markets (STP) o Analytical instruments o Marketing strategies
	Learning content 4	Conception level: Marketing-mix o Product management / Brand management o Pricing o Communication concept o Sales & distribution o Integrated marketing-mix
	Learning content 5	Design of a marketing conception
	Learning content b) Data Mining	
5.2	In the lecture "Data Mining" a praxis relevant course program will be offered that addresses the operational analysis of (mass) data from data processing to modeling and interpretation. While doing so concepts of computer science will be combined with Multivariate Statistics and will be used in context of operational decision support.	
	Learning content 5	1. Basics of Data Mining a. Inquiry Issues and Procedure Modell b. Data Processing and Exploration c. Case Study/ Exercises with Knime or R
	Learning content 6	2. Prediction using Regression Analysis a. Multiple Regression, Regression Trees, Random Forests, Gradient Boosting, Neural Networks b. Case Study/ Exercises with Knime or R
	Learning content 7	3. Prediction using Classification Analysis a. Classification with Logistic Regression, Decision Trees, Random Forests, Gradient Boosting, Neural Networks b. Case Study/ Exercises with Knime or R
	Learning content 8	4. Segmentation with Cluster Algorithms a. Hierarchical cluster analysis, k-means b. Case Study/ Exercises with Knime or R
	Learning content 9	5. Dimensionality reduction a. Dimensionality reduction with Principal Component Analysis, Factor Analysis, Multidimensional Scaling b. Case Study/ Exercises with Knime or R
Requirements & examination		
6	Participation requirement	None

7.1	Requirements for the award of credit points	Passed module exam
7.2	Assessment method a) Marketing Conception	50% Presentation, 50% (a. written exam in the German speaking course, b. oral exam in the English speaking course)
7.2	Assessment method b) Data Mining	100% Project
7.3	Requirements for admission to the examination	
7.4	Importance of the mark for total mark	5% (6 ECTS of 120 ECTS)
8.1	Lecture language	English
8.2	Module supervisor	Prof. Dr. Ralf Schengber
8.3	Lecturers	Prof. Dr. Ralf Schengber Prof. Dr. Bert Kiel Prof. Dr. Michael Bucker
8.4	Maximum number of participants	
8.5	Supplementary information	Marketing Conception will be given in English and German (in separate courses).
Recommended reading		
a) Marketing Conception		
Becker, Marketingkonzeption, 11. Aufl., 2019		
P. Kotler, K. Keller, Chernev; Marketing Management, 16e, 2022		
W. L. Winston; Marketing Analytics, 2014		
R.W. Palmatier, E. Sividas, L.W. Stern, A.I. El-Ansary; Marketing Channel Strategy, 9e, 2020		
K. King, AI Strategy for sales and marketing, 2022		
Simon Hall, B2B Digital Marketing Strategy, 2020		
K.E. Clow, D.Baack, Integrated advertising, promotion and marketing communication, 9e, 2022		
E. Haugom; Essentials of pricing analytics, 2021		
Dominik Kosorin, Introduction to programmatic advertising, 2.e., 2022		
b) Data Mining		
T. Hastie, R. Tibshirani, J. Friedmann; The Elements of Statistical Learning, 2017		
G. James, D. Witten, T. Hastie, R. Tibshirani; An Introduction to Statistical Learning, 2017		
H. Wickham, G. Grolemund; R for Data Science, 2017		
M. Bramer; Principles of Data Mining; 2016		
M. Kuhn, K. Johnson; Applied Predictive Modeling, 2016		
F. Provost, T. Fawcett; Data Science for Business, 2013		