

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	Seminarian 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.
	ILO MCDM 3	Graduates are able to present their solutions in an accurate and structured form.
Intended learning outcomes a) Professional Expertise Marketing Conception		
	ILO MCDM 4	Graduates are able to portray the process-oriented analysis of a marketing conception.

Contribution of module ILOs to study programme ILOs

(only most relevant contribution is highlighted)



A1

Graduates can **apply theoretical knowledge** of the international marketing & sales discipline enabling them **to take decisions on** the development of appropriate **strategies and measures solving business problems** within a changing multicultural environment, to meet stakeholder interests in for example: marketing conception, sales management, international management, and business innovation.



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S1

Graduates can **effectively communicate in English or in the teaching language of their study abroad country on advanced academic and professional level**, oral and in writing, in person and using a range of media and communication systems, which are widely used in business. They can precisely represent their own views and convictions in discussions in a natural - looking manner and **act and react in socially adequate ways in intercultural, negotiation and ethically demanding situations**.



K1

Graduates can effectively **self-manage** (in terms of motivation, time, planning and behaviour) an IT-system supported **learning process to gain knowledge on strategy & leadership, organisations, external environment and management** in the professional fields of international marketing & sales.

5.1	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.
	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.
	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.
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.
	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.
	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.
Learning content a) Marketing Conception		
5.2	Learning content 1	Introduction
	Learning content 2	Conception Level Marketing Target o TargetPrograms o TargetDerivingandTargetRelationship o TargetSystem
	Learning content 3	Conception Level Marketing Strategies o DefinitionofstrategicTargetMarkets o AnalysisInstrument o MarketingStrategies
	Learning content 4	Conception Level Marketing-Mix o ProductPolicy o PricePolicy o Communication Policy o DistributionPolicy o Marketing-Mix
	Learning content 5	Design of a Marketing Conception
Learning content b) Data Mining		
		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



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A2	Graduates can identify, structure, analyse and finally solve international real-world business problems in conditions of limited knowledge or uncertainty by creating and evaluating a range of options with the help of quantitative and qualitative methods, applying project management skills, managing themselves as well as team members, coordinating tasks, delivering target group oriented results and reflecting critically on project success.

K2	Graduates can prepare effective decision taking by identifying knowledge gaps, formulating research questions for e.g. analysing customers or international markets, selecting and using appropriate quantitative and qualitative skills , making use of suitable communication and information systems, demonstrating cognitive skills of critical thinking, analysis and synthesis in order to derive strategic and operational recommendations for action in the professional fields of international marketing & sales.
D1	Graduates will be able to identify the main effects of digitization on companies and markets, to manage information & communication systems in order to demonstrate data literacy, technological literacy and digital interaction competence for application in the professional fields of international marketing & sales
A2	Graduates can identify, structure, analyse and finally solve international real-world business problems in conditions of limited knowledge or uncertainty by creating and evaluating a range of options with the help of quantitative and qualitative methods, applying project management skills, managing themselves as well as team members, coordinating tasks, delivering target group oriented results and reflecting critically on project success.

5.2	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, passed partial performance
7.2	Assessment method a) Marketing Conception	50% Presentation, 50% (written or verbal) exam
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		
W. L. Winston; Marketing Analytics, 2014		
Becker, Marketingkonzeption, 11. Aufl., 2019		
P. Kotler, K. Keller; Marketing Management, 2016		
R.W. Palmatier, S.Sridhar; Marketing Strategy, 2017		
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. Grolemond; 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		