

Valid for 2022.HS

<b>Module Name: Quantitative Methods and Big Data for Managers</b>			
Module Code	w.BA.XX.2QMethBD.XX		
Module Description	This module teaches students an applied approach to empirical and quantitative methods that enables them to understand data-driven decision-making processes and make the respective decisions themselves. It covers a wide range of quantitative methods – from the design of questionnaires to analysis using visual tools and multivariate regressions. The module is designed as a project course in which students work on their own quantitative project (in small groups), giving them a hands-on experience of data-driven analysis. Participation prepares students for using quantitative methods in their Bachelor's thesis, but it also teaches important fundamentals that can be applied in a more data-driven business environment.		
Program and Specialization	<ul style="list-style-type: none"> <li>§ Business Administration - Specialization in Accounting, Controlling, Auditing</li> <li>§ Business Administration - Specialization in Banking and Finance</li> <li>§ Business Administration - Specialization in Banking and Finance (FLEX)</li> <li>§ Business Administration - Specialization in Banking and Finance (PiE)</li> <li>§ Business Administration - Specialization in Behavioral Design</li> <li>§ Business Administration - Specialization in Economics and Politics</li> <li>§ Business Administration - Specialization in General Management</li> <li>§ Business Administration - Specialization in General Management (Flex)</li> <li>§ Business Administration - Specialization in Marketing</li> <li>§ Business Administration - Specialization in Risk and Insurance</li> <li>§ International Management</li> </ul>		
Legal Framework	Academic Regulations BSc dated 29.01.2009, Appendix to the Academic Regulations for the degree programs in Business Administration, Business Information Technology, and Business Law, first adopted on 12.05.2009		
Module Category	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;"><b>Module Type:</b> Compulsory Elective</td> <td style="width: 40%;"><b>Program Phase:</b> Main Study Period</td> </tr> </table>	<b>Module Type:</b> Compulsory Elective	<b>Program Phase:</b> Main Study Period
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ECTS	3		
Organizational Unit	W Abteilung International Business		
Module Coordinator	Benedikt Zoller-Rydzek (zolz)		
Deputy Module Coordinator	Florian Keller (kelf)		
Prerequisite Knowledge	No prerequisite knowledge is required, but an affinity to tools or programs such as Excel is helpful.		
Contribution to Program Learning Goals (Affected by Module)	<ul style="list-style-type: none"> <li>§ Professional Competence</li> <li>§ Methodological Competence</li> <li>§ Social Competence</li> <li>§ Self-Competence</li> </ul>		
Contribution to Program Learning Objectives	<ul style="list-style-type: none"> <li>Professional Competence <ul style="list-style-type: none"> <li>§ Knowing and Understanding Content of Theoretical and Practical Relevance</li> <li>§ Apply, Analyze, and Synthesize Content of Theoretical and Practical Relevance</li> <li>§ Evaluate Content of Theoretical and Practical Relevance</li> </ul> </li> <li>Methodological Competence <ul style="list-style-type: none"> <li>§ Problem-Solving &amp; Critical Thinking</li> <li>§ Scientific Methodology</li> <li>§ Work Methods, Techniques, and Procedures</li> <li>§ Information Literacy</li> <li>§ Creativity &amp; Innovation</li> </ul> </li> <li>Social Competence <ul style="list-style-type: none"> <li>§ Written Communication</li> <li>§ Oral Communication</li> <li>§ Teamwork &amp; Conflict Management</li> <li>§ Intercultural Insight &amp; Ability to Change Perspective</li> </ul> </li> <li>Self-Competence <ul style="list-style-type: none"> <li>§ Self-Management &amp; Self-Reflection</li> <li>§ Ethical &amp; Social Responsibility</li> <li>§ Learning &amp; Change</li> </ul> </li> </ul>		
Module Learning Objectives	<p>Students...</p> <ul style="list-style-type: none"> <li>§ understand what quantitative research is and when quantitative methods can be applied</li> <li>§ are able to design surveys that can be used to gather data</li> <li>§ are able to work with data, such as cleaning and analyzing data using visual and basic quantitative tools</li> </ul>		

	§ understand the limitation of surveys: (i) selection bias, (ii) sampling and sample size problems, (iii) correlation vs. causation, and (iv) statistical significance § are able to interpret and present quantitative results § know about Big Data trends and possible applications		
Module Content	§ Introduction to quantitative and qualitative methods § Good design and execution of surveys § Data preparation and analysis § Data presentation and interpretation		
Links to other modules	-		
Methods of Instruction	§ Lecture § Application Tasks § Exercises § Problem-Oriented Teaching § Project Work	<b>Social Settings Used:</b> Group Work	
Digital Resources	§ Reader § Teaching Videos § Teaching Materials § Online survey project		
Type of Instruction	<b>Classroom Instruction</b>	<b>Guided Self-Study</b>	<b>Autonomous Self-Study</b>
Large Class	28 h	-	
Small Class	-	-	
Group Instruction	-	-	
Practical Work	-	42 h	
Seminar	-	-	
<b>Total</b>	<b>28 h</b>	<b>42 h</b>	
Performance Assessment			
<b>End-of-module exam</b>	<b>Form</b>	<b>Length (min.)</b>	<b>Weighting</b>
Oral exam		10	40,00 %
<b>Permitted Resources</b>	Permitted resources to be communicated.		
<b>Others</b>			
	<b>Assessment</b>	<b>Length (min.)</b>	<b>Weighting</b>
Written Assignment	Grade	-	15,00 %
Written Assignment	Grade	-	15,00 %
Written Assignment	Grade	-	15,00 %
Written Assignment	Grade	-	15,00 %
Classroom Attendance Requirement	Mandatory Attendance: Other  This class will be mainly taught online (unless COVID-19 regulations change). Pre-recorded classes will be complemented by live online teaching sessions on MS-Teams or another platform. This will allow for knowledge-focused, asynchronous teaching and in-class discussions.		
Language of Instruction/Examination	English		
Compulsory Reading	-		
Recommended Reading	-		
Comments	-		