

Valid for 2024.FS

Module Name: Quantitative Methods and Big Data for Managers		
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	§ Business Administration - Specialization in Accounting, Controlling, Auditing § Business Administration - Specialization in Banking and Finance § Business Administration - Specialization in Banking and Finance (FLEX) § Business Administration - Specialization in Banking and Finance (PiE) § Business Administration - Specialization in Behavioral Design § Business Administration - Specialization in Economics and Politics § Business Administration - Specialization in General Management § Business Administration - Specialization in General Management (Flex) § Business Administration - Specialization in Marketing § Business Administration - Specialization in Risk and Insurance § International Management	
Legal Framework	Academic Regulations BSc dated 29.01.2009, for the degree programs in Business Administration, International Management, Business Information Technology, Business Law, Business Law and Applied Law, first adopted on 12.05.2009	
Module Category	Module Type: Compulsory Elective	Program Phase: Main Study Period
ECTS	3	
Organizational Unit	W Abteilung International Business	
Module Coordinator	Benedikt Zoller-Rydzek (zolb)	
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)	§ Professional Competence § Methodological Competence § Social Competence § Self-Competence	
Contribution to Program Learning Objectives	Professional Competence § Knowing and Understanding Content of Theoretical and Practical Relevance § Apply, Analyze, and Synthesize Content of Theoretical and Practical Relevance § Evaluate Content of Theoretical and Practical Relevance Methodological Competence § Problem-Solving & Critical Thinking § Scientific Methodology § Work Methods, Techniques, and Procedures § Information Literacy § Creativity & Innovation Social Competence § Written Communication § Oral Communication § Teamwork & Conflict Management § Intercultural Insight & Ability to Change Perspective Self-Competence § Self-Management & Self-Reflection § Ethical & Social Responsibility § Learning & Change	
Module Learning Objectives	Students... § understand what quantitative research is and when quantitative methods can be applied § are able to design surveys that can be used to gather data § are able to work with data, such as cleaning and analyzing data using visual and basic quantitative tools	

	§ 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	Social Settings Used: Group Work	
Digital Resources	§ Reader § Teaching Videos § Teaching Materials § Online survey project		
Type of Instruction	Classroom Instruction	Guided Self-Study	Autonomous Self-Study
Large Class	28 h	-	
Small Class	-	-	
Group Instruction	-	-	
Practical Work	-	42 h	
Seminar	-	-	
Total	28 h	42 h	20 h
Performance Assessment			
End-of-module exam	Form	Length (min.)	Weighting
Oral exam		10	40,00 %
Permitted Resources	Permitted resources to be communicated.		
Others	Assessment	Length (min.)	Weighting
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	-		