

2019.HS

Module Name: Quantitative Analysis in Business	
Module Code	w.BA.XX.1QAB-IM.XX
Module Description	The primary aims of this module are to ensure that students acquire a thorough introduction into the theory and practice of business mathematics and applied statistics as it is used in business decision-making. Students acquire an advanced understanding of the collection and summary of data and the presentation of information in a manner suited to a business environment. Students understand and apply quantitative techniques used in business decision-making.
Program and Specialization	International Management
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	Module Type: Compulsory
	Program Phase: First-Year Studies
ECTS	6
Organizational Unit	W Zentrum für Risk & Insurance Ltg.
Module Coordinator	Beat Scherrer (scee)
Deputy Module Coordinator	Armin Bänziger-Aiba (banz)
Prerequisite Knowledge	-
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 Self-Competence § Self-Management & Self-Reflection § Learning & Change
Module Learning Objectives	Students... § explain why quantitative methods are useful for management § understand the use of models § name the most common quantitative methods used in business § use appropriate methods in the quantitative analysis of business problems § collect, summarize, and present data § solve common quantitative business problems § apply basic inferential statistics in a business context § manage common quantitative business problems and make decisions in situations of uncertainty § base their judgment on appropriate quantitative analysis § apply quantitative reasoning competently § use the relevant vocabulary appropriately § appreciate the increasing importance of quantitative methods and develop the willingness to deepen their understanding of quantitative methods

Module Content	§ Basic concepts and theories of algebra, differential calculus, and financial mathematics in a business context § Descriptive statistics (frequency distributions as well as measures of location and spread) § Visual modeling of business problems § Basic financial mathematical concepts (present value, future value, annuities, and perpetuities) § Simple regression and curve fitting - forecasting § Basic probability theory and probability distributions § Sampling distributions, confidence intervals and hypotheses testing § Solving business problems (e.g., a mathematical approach to the management of decisions, quality, inventory, projects, and queues, etc.)		
Links to other modules	-		
Methods of Instruction	§ Lecture § Interactive Instruction § Exercises	Social Settings Used: § Individual Work § Pair Work	
Digital Resources	Practice and Application Exercises (with Key)		
Type of Instruction	Classroom Instruction	Guided Self-Study	Autonomous Self-Study
Large Class	56 h	44 h	
Small Class	-	-	
Group Instruction	-	-	
Practical Work	-	-	
Seminar	-	-	
Total	56 h	44 h	80 h
Performance Assessment			
End-of-module exam	Form	Length (min.)	Weighting
Written exam	Open book	120	100.00 %
Permitted Resources	Approved calculator according to "Guidelines on Supplementary Materials"		
Others	Assessment	Length (min.)	Weighting
Performance record	Pass/Fail	-	-
Classroom Attendance Requirement	80% of all lessons		
Language of Instruction/Examination	English		
Compulsory Reading	Waters, D. (2011). Quantitative Methods for Business. 5th edition. Financial Times Press. ISBN 9780273739470.		
Recommended Reading	-		
Comments	-		