

Valid for 2023.HS

Module Name: Data Analysis and Presentation in Excel and Python		
Module Code	w.BA.XX.WPM-DAP.XX	
Module Description	Students will acquire the knowledge necessary to deal with data preparation, analysis, and presentation tasks in Excel and Python. Excel: Special focus will be placed on array formulas and user-defined (lambda) functions. Python: We will mainly use the pandas library.	
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 Economics and Politics § Business Administration - Specialization in Financial Management § 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 Institut für Risk & Insurance	
Module Coordinator	Johannes Gerd Becker (bece)	
Deputy Module Coordinator	Jürg Portmann (port)	
Prerequisite Knowledge	Knowledge of basic descriptive statistics 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 Self-Competence § Self-Management & Self-Reflection § Ethical & Social Responsibility § Learning & Change	
Module Learning Objectives	Students... § clean datasets § explore and analyze data § express business logic using spreadsheet formulas and code § automate data analysis tasks in Python § present data using appropriate diagrams § can find appropriate resources for self-study and problem-solving	

Module Content	§ Array formulas § Sorting, filtering, mapping, grouping, and aggregating data § Vectors and matrices § LAMBDA functions § Data presentation and diagrams § Basics of macros and VBA § Working with Jupyter notebooks § Reading and writing data § Python basics § Working with dataframes in pandas § Data presentation in Python		
Links to other modules	The content of this module is linked to the following modules:		
	w.BA.XX.1QAB-IM.XX		
	w.BA.XX.2Stat.XX		
	w.BA.XX.3DSTI-RI.XX		
Methods of Instruction	-		Social Settings Used:
			§ Individual Work § Pair Work
Digital Resources	§ Teaching Videos § Spreadsheets § Jupyter notebooks		
Type of Instruction	Classroom Instruction	Guided Self-Study	Autonomous Self-Study
Large Class	28 h	14 h	
Small Class	-	-	
Group Instruction	-	-	
Practical Work	-	-	
Seminar	-	-	
Total	28 h	14 h	48 h
Performance Assessment			
End-of-module exam	Form	Length (min.)	Weighting
-	-	-	-
Permitted Resources	-		
Others	Assessment	Length (min.)	Weighting
Mid-semester exam	Grade	90	40.00 %
End-semester exam	Grade	90	60.00 %
Classroom Attendance Requirement	Mandatory Attendance: None		
Language of Instruction/Examination	English		
Compulsory Reading	-		
Recommended Reading	-		
Comments	A relatively recent version of MS Office 365 for desktop computers is required. Office online or older Office versions are not sufficient. Both exams consist largely of tasks that have to be solved on a PC.		