

Course Title	Quantitative Business							
Course Code	EBC2025							
ECTS Credits	6,5							
Assessment	Whole/Half Grades							
Period	Period	Start	End	Mon	Tue	Wed	Thu	Fri
	5	15-4-2024	7-6-2024		L	X		X
Level	Intermediate							
Coordinator	Martin Schumann For more information:m.schumann@maastrichtuniversity.nl							
Language of instruction	English							
Goals	Learn to recognize the opportunities to apply basic tools from mathematics and inferential statistics in business. Learn to implement statistical tools using the statistical software package SPSS, and to correctly interpret the results.							
Description	This course is devoted to refreshing, extending and actively applying the mathematical and statistical tools introduced in the first year quantitative methods courses. In the mathematics part we pay attention to a number of applications of first-year mathematical tools to business economics, such as: investment under uncertainty, the CAPM-model, industrial organisation, Game Theory a.o. The purpose is twofold: to repeat and extend the first-year methods and show how they are applied on the one hand, and to get acquainted with some basic quantitative business models on the other hand. In the statistics part we repeat, apply and extend all the inferential tools discussed in the first year: a.o. the one-sample t-test, the independent-samples t-test, the paired sample t-test, one-way-ANOVA, the chi-square test and regression analysis. Some new techniques, e.g. non parametric tests, logistic regression and factor analysis will be introduced. Case studies using real-life datasets that reflect business problems from a.o. marketing and finance are examined extensively. The empirical analyses are performed with SPSS, a statistical software package widely used in professional practice.							
Literature	* Sharpe, Norean R., Richard D. De Veaux and Paul F. Velleman (2019), Business Statistics and Extra Texts, 4th ed., New York: Pearson Education International, Maastricht University Edition. * QM1 and QM2 mathematics readers, to be downloaded on the corresponding course pages							
Prerequisites	TRANSITIONAL REGULATIONS: This course is in transition within the pre-master Economics and Strategy in Emerging Markets The following rule applies to pre-master Economics and Strategy in Emerging Markets students who started the programme prior to academic year 2023-2024. TRANSITIONAL REGULATION (EBC2025): Repeat the course or replace it with Research Methods for Pre-master (EBC2170). See the Transitional Regulations section in the Bachelor Education and Examination Regulations for more information. PREREQUISITES: Intermediate knowledge of mathematics and statistics, comparable to the course Quantitative Methods II, code EBC1033/1034/1035.							
Teaching methods	PBL / Lecture / Assignment / Groupwork							
Assessment methods	Participation / Written Exam							
Evaluation in previous academic year	For the complete evaluation of this course please click http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM							
This course belongs to the following programme / specialisation	Bachelor Economics and Business Economics - Economics				Year 3 Quantitative Economics Elective(s)			
	Bachelor Economics and Business Economics - Emerging Markets				Year 2 Elective Course(s)			
	Bachelor Economics and Business Economics - Emerging Markets				Year 3 Elective Course(s)			
	Bachelor Economics and Business Economics - Economics and Management of Information				Year 2+3 Quantitative Economics Elective(s)			
	Bachelor Economics and Business Economics - International Business Economics				Year 2 Compulsory Course(s)			
	Bachelor International Business - Emerging Markets				Year 3 Elective Course(s)			
	Bachelor International Business				Year 3 QE Elec(s) - Maj Accounting			
	Bachelor International Business				Year 3 QE Elec(s) - Maj Finance			
	Bachelor International Business				Year 3 QE Elec(s) - Maj Inf Mgmt			
	Bachelor International Business				Year 3 QE Elec(s) - Maj Marketing			
	Bachelor International Business				Year 3 QE Elec(s) - Maj Org			
	Bachelor International Business				Year 3 QE Elec(s) - Maj SCM			
	Bachelor International Business				Year 3 QE Elec(s) - Maj Strategy			
	Transitional Regulations				See prerequisites			
	SBE Exchange Bachelor				Bachelor Exchange Courses			
SBE Exchange Master				Bachelor Exchange Courses				
SBE Non Degree Courses				Bachelor Courses				