

## Course Descriptions Exchange 2021-2022

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	11-4-2022	3-6-2022		L	X		X																																	
Level	Intermediate																																								
Coordinator	Christian Kerckhoffs For more information:c.kerckhoffs@maastrichtuniversity.nl																																								
Language of instruction	English																																								
Goals	<p>Learn to recognize the opportunities to apply basic tools from mathematics and inferential statistics in business.</p> <p>Learn to implement statistical tools using the statistical software package SPSS, and to correctly interpret the results.</p>																																								
Description	<p>This course is devoted to refreshing, extending and actively applying the mathematical and statistical tools introduced in the first year quantitative methods courses.</p> <p>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.</p> <p>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.</p>																																								
Literature	<p>Sharpe, Norean D., De Veaux, Richard D., &amp; Velleman, Paul F. (2017), Business Statistics and Extra Texts, 3rd Intern. Ed., New York: Pearson Education International .</p> <p>QM1 + QM2 mathematics reader, to be downloaded on Student Portal.</p>																																								
Prerequisites	Intermediate knowledge of mathematics and statistics, comparable to the course Quantitative Methods II, code EBC1033/1034/1035.																																								
Teaching methods	PBL / Presentation / Lecture / Assignment / Groupwork																																								
Assessment methods	Participation / Written Exam																																								
Evaluation in previous academic year	For the complete evaluation of this course please click <a href="http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM">http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM</a>																																								
This course belongs to the following programme / specialisation	<table border="1"> <tr> <td>Bachelor Economics and Business Economics - Economics</td> <td>Year 3 Quantitative Economics Elective(s)</td> </tr> <tr> <td>Bachelor Economics and Business Economics - Emerging Markets</td> <td>Year 2 Elective Course(s)</td> </tr> <tr> <td>Bachelor Economics and Business Economics - Emerging Markets</td> <td>Year 3 Elective Course(s)</td> </tr> <tr> <td>Bachelor Economics and Business Economics - Economics and Management of Information</td> <td>Year 2+3 Quantitative Economics Elective(s)</td> </tr> <tr> <td>Bachelor Economics and Business Economics - International Business Economics</td> <td>Year 2 Compulsory Course(s)</td> </tr> <tr> <td>Bachelor International Business - Emerging Markets</td> <td>Year 3 Elective Course(s)</td> </tr> <tr> <td>Bachelor International Business</td> <td>Year 3 QE Elec(s) - Maj Accounting</td> </tr> <tr> <td>Bachelor International Business</td> <td>Year 3 QE Elec(s) - Maj Finance</td> </tr> <tr> <td>Bachelor International Business</td> <td>Year 3 QE Elec(s) - Maj Inf Mgmt</td> </tr> <tr> <td>Bachelor International Business</td> <td>Year 3 QE Elec(s) - Maj Marketing</td> </tr> <tr> <td>Bachelor International Business</td> <td>Year 3 QE Elec(s) - Maj Org</td> </tr> <tr> <td>Bachelor International Business</td> <td>Year 3 QE Elec(s) - Maj SCM</td> </tr> <tr> <td>Bachelor International Business</td> <td>Year 3 QE Elec(s) - Maj Strategy</td> </tr> <tr> <td>Pre-master Economics and Strategy in Emerging Markets</td> <td>Compulsory Course(s)</td> </tr> <tr> <td>SBE Exchange Bachelor</td> <td>Bachelor Exchange Courses</td> </tr> <tr> <td>SBE Exchange Master</td> <td>Bachelor Exchange Courses</td> </tr> <tr> <td>SBE Non Degree Courses</td> <td>Bachelor Courses</td> </tr> </table>							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	Pre-master Economics and Strategy in Emerging Markets	Compulsory Course(s)	SBE Exchange Bachelor	Bachelor Exchange Courses	SBE Exchange Master	Bachelor Exchange Courses	SBE Non Degree Courses	Bachelor Courses
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