Course Descriptions None 2013-2014

Course Title	Quantitative Techniques for Financial Economics
Course Code	EBC4097
ECTS Credits	6,5
Assessment	None

Period

Period	Start	End	Mon	Tue	Wed	Thu	Fri
1	2-9-2013	25-10-2013	X		X		
4	3-2-2014	4-4-2014	X		X		

Level	Advanced
Coordinator	Christian Gengenbach For more information:c.gengenbach@maastrichtuniversity.nl
Language of instruction	English
Goals	The objectives of the course are to provide student in the Financial Economics master programme with a solid knowledge of stochastic models and econometric techniques used in the analysis of financial markets. The students should be able to read and assess the current literature on stochastic models and econometric methods used in security pricing and empirical finance and to apply the acquired techniques in practice.
Description	The course consists of two parts. In the first part, we cover and discuss the theoretical concepts and probability models underlying the pricing, construction, and hedging of (derivative) securities. Key concepts such as arbitrage pricing and risk-neutral valuation are introduced in a formal way and their implementation and use by market practitioners will be discussed. The second part focuses on advanced econometric techniques for modelling financial time series. Topics that are covered include GARCH models. Empirical applications will provide students with practical experience in analysing financial time series.
Literature	Will be provided.
Prerequisites	Solid background in finance and in statistics (on the level of a quantitatively oriented economics/finance bachelor). Required concepts from mathematics/statistics are a.o. random variables, probability distritbutions, statistical tests, regression analysis, ordinary and partil derivatives, exponential funciont; some basic knowledge in programming (e.g. in VBA, MATLAB, R. OX) will be helpful. An advanced level of English. .
Teaching methods	PBL / Presentation / Lecture / Assignment
Assessment methods	Final Paper / 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

Master Financial Economics	Asset Pricing
Master Financial Economics	Banking
Master Financial Economics	Financial Analysis
SBE Exchange Master	Master Courses
SBE Non Degree Courses	Master Courses