

## Course Descriptions NonDegree 2017-2018

Course Title Time Series Methods and Dynamic Econometrics  
 Course Code EBC4008  
 ECTS Credits 6,5  
 Assessment None

Period	Period	Start	End	Mon	Tue	Wed	Thu	Fri
2		30-10-2017	22-12-2017		X	X		X

Level Advanced

Coordinator Alain Hecq, Stephan Smeekes For more information: a.hecq@maastrichtuniversity.nl; s.smeekes@maastrichtuniversity.nl

Language of instruction English

Goals The objectives of this course are to provide students with an understanding of the concepts of modern time series methods as well as practical experience in analysing time series from economics or business. Students will have learned recent econometric methods to study multivariate economic time series. Students should be able to apply these methods to economic data.

Description The emphasis of this course is on the study of methods for the analysis of possibly nonstationary economic time series. We consider both theoretical and practical aspects. We cover and discuss issues related to exogeneity and causality in dynamic econometric models, modelling univariate and multivariate nonstationary processes, unit roots, cointegration as well as the asymptotic theory for integrated processes. Empirical applications are also considered so that the course will provide students with practical experience in analysing univariate and multivariate time series cointegration, factor models as well as from economics or business.

Literature Davidson J. (2000), Econometric Theory, Basil Blackwell, Oxford.  
 Reader.

Pesaran, H.M. (2015), Time Series and Panel Econometrics (Oxford University Press: Oxford).

Prerequisites - Econometric methods (EBC2111), Stochastic Processes (EBC4004).  
 - Exchange students need to have a solid background in econometric methods, probability theory, mathematical statistics, and some knowledge in stochastic processes (some familiarity with Brownian Motion theory is important). Exchange students need to have obtained a Bachelor degree and an advanced level in mathematics and probability and statistics.  
 An advanced level of English.

Teaching methods PBL / Presentation / Lecture / Groupwork

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 Business Research	Free Electives
Master Business Research Track OR	Free Electives
Master Econometrics and OR	Actuarial Science
Master Econometrics and OR	Econometrics
Master Econometrics and OR	Econometrics & OR Electives
Master Economic and Financial Research Track Econometrics	Electives
Master Economic and Financial Research Track Econometrics	Track Econometrics Core Courses
Master Economic and Financial Research	Electives
Master Financial Economics	Electives
SBE Exchange Master	Master Exchange Courses
SBE Non Degree Courses	Master Courses