

Course Title	Time Series Econometrics							
Course Code	EBC4008							
ECTS Credits	6,5							
Assessment	Whole/Half Grades							
Period	Period	Start	End	Mon	Tue	Wed	Thu	Fri
	2	31-10-2022	16-12-2022		X	X		X
Level	Advanced							
Coordinator	Ines Wilms For more information:i.wilms@maastrichtuniversity.nl							
Language of instruction	English							
Goals	<p>The objectives of this course are :</p> <ul style="list-style-type: none"><li>- to provide students with an understanding/intuition of the concepts of modern time series methods that are used in econometrics.</li><li>- introduce the student to fundamental methodological issues in dynamic econometric modelling (nonstationarity, nonstandard asymptotic theory).</li><li>- to provide students with some experience in analyzing univariate and multivariate time series from economics or business.</li></ul>							
Description	<p>PLEASE NOTE THAT THE INFORMATION ABOUT THE TEACHING AND ASSESSMENT METHOD(S) USED IN THIS COURSE IS WITH RESERVATION. A RE-EMERGENCE OF THE CORONAVIRUS AND NEW COUNTERMEASURES BY THE DUTCH GOVERNMENT MIGHT FORCE COORDINATORS TO CHANGE THE TEACHING AND ASSESSMENT METHODS USED. THE MOST UP-TO-DATE INFORMATION ABOUT THE TEACHING/ASSESSMENT METHOD(S) WILL BE AVAILABLE IN THE COURSE SYLLABUS.</p> <p>The emphasis of this course will be on studying in depth methods and techniques for the analysis of (nonstationary) economic and financial time series. We will cover and discuss issues related to:</p> <ul style="list-style-type: none"><li>- dynamic econometric modelling</li><li>- modelling nonstationary processes</li><li>- asymptotic theory for dependent and integrated processes</li><li>- unit roots (representation, tests, properties), cointegration and VECMs.</li></ul> <p>Empirical applications as well as simulation experiments will also be considered to provide students with practical experience in analyzing economic and business time series.</p>							
Literature	<p>The main textbook used in this course will be:</p> <ul style="list-style-type: none"><li>- Hamilton, J.D. (1994), Time Series Analysis, Princeton University Press, Princeton.</li></ul> <p>You might also want to consult the following book:</p> <ul style="list-style-type: none"><li>- Davidson J. (2000), Econometric Theory, Blackwell Publishing, Oxford.</li></ul> <p>The first book is mathematically very concise, while the second book is more narrative of nature. Students often perceive the two books as complementary.</p>							
Prerequisites	<ul style="list-style-type: none"><li>- Econometric methods (EBC2111), Stochastic Processes (EBC4004).</li></ul> <p>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.</p> <p>An advanced level of English.</p>							
Teaching methods	PBL / Presentation / Lecture / Assignment / Groupwork							
Assessment methods	Final Paper / Participation / Written Exam / Assignment / Presentation							
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	Master Business Research - No specialisation				Year 2 Free Elective(s)			
	Master Business Research - Operations Research				Year 1 Elective Course(s)			
	Master Business Research - Operations Research				Year 2 Elective Course(s)			
	Master Econometrics and Operations Research				Elective Course(s)			
	Master Economic and Financial Research - Econometrics				Year 1 Core Course(s)			
	Master Economic and Financial Research - Econometrics				Year 1 Elective Course(s)			
	Master Economic and Financial Research - No specialisation				Year 1 Elective Course(s)			
	Master Financial Economics - Asset Pricing				Elective Course(s)			
	Master Financial Economics - Banking				Elective Course(s)			
	Master Financial Economics - Financial Analysis				Elective Course(s)			
	Master Financial Economics - No specialisation				Elective Course(s)			
	SBE Exchange Master				Master Exchange Courses			
	SBE Non Degree Courses				Master Courses			