Course Descriptions None 2021-2022

Course Title	Econometric Methods I
Course Code	EBC2111
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	Advanced
Coordinator	Alain Hecq For more information:a.hecq@maastrichtuniversity.nl
Language of instruction	English
Goals	Students will have a good knowledge of econometric methods. They will have the skills to apply these methods to a set of economic data.
Description	This course is part of the programme for second-year econometrics students. The challenge of econometrics is to answer the question, what everyday reality has to tell about economic theories. Here, everyday reality takes the form of numerical observations or 'data', while economic theories are translated into a formal statistical 'model' with corresponding hypotheses. In order to extract as much information as possible out of the former concerning the latter, an appeal is made to statistical induction. These are the 'econometric methods' that are the subject of this course. They comprise mainly the estimation of the model parameters, the testing of the model hypotheses, and making (conditional) predictions with the model. We will study the most frequently used statistical methods and techniques in the first place for the classical linear model, but we mainly focus of the matrix notations of usual linear estimators and test statistics (e.g., OLS, OLS, the t-tests, F-test). Those estimators will be implemented during the tutorial meetings using the software packages R and Eviews. Further some important assumptions will be relaxed and alternative estimators (GLS, SURE) will be investigated in the presence of autocorrelation and heteroskedasticity. This course also emphasize dynamic models and time series econometrics (ARMA, VAR, cointegration, unit root, VECM, ...). Applied works (R, Eviews) will be carried out during tutorial meetings. The course Econometrics Methods II in the programme for the third-year econometrics students, covers issues that we do not do in this course (IV, GMM, ML, ...).
Literature	Greene, W. (2012), Econometric Analysis, 7th ed., Pearson.
Prerequisites	A first course in econometrics (see, e.g. Empirical Econometrics). Exchange students should have advanced knowledge of: 1) Mathematical statistics, 2) probability theory, 3) matrix algebra, 4) introduction to quantitative methods with an emphasis to the linear model An advanced level of English.
Teaching methods	PBL / Presentation / Lecture / Assignment / Groupwork
Assessment methods	Participation / Written Exam / Presentation
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 Econometrics and Operations Research	Year 2 Compulsory Course(s)
Bachelor Fiscal Economics	Year 3 Elective Course(s)
SBE Exchange Bachelor	Bachelor Exchange Courses
SBE Exchange Master	Bachelor Exchange Courses
SBE Non Degree Courses	Bachelor Courses
Pre-master Economics	Disciplinary Course(s)
Pre-master Financial Economics	Disciplinary Course(s)
Pre-master Human Decision Science	Compulsory Course(s)