UČNI NAČRT PREDMETA / COURSE SYLLABUS	
Predmet:	**Nadaljevalna ekonometrija**
Course title:	Advanced Econometrics

Študijski program in stopnja Study programme and level	Študijska smer Study field	Letnik Academic year	Semester Semester
Doktorski program ekonomskih in poslovnih ved, tretjestopenjski program	Usmeritev Ekonomija in usmeritev Poslovne vede	1.	2.
Doctoral Program in Economics and Business	Economics and Business track	1.	2.

Vrsta predmeta / Course type	Metodološke osnove / Methodological foundation
Univerzitetna koda predmeta / University course code:	

Predavanja Lectures	Seminar Seminar	Vaje Tutorial	Klinične vaje Laboratory work	Druge oblike dela	Samost. delo Individ. work	ECTS
40		25		40	135	8

Nosilec predmeta / Lecturer:	Prof.dr. Martin Wagner

Jeziki / Languages:	**Predavanja / Lectures:**	Angleški/English; Slovenski/Slovenian
	Vaje / Tutorial:	Angleški/English; Slovenski/Slovenian

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:	**Prerequisits:**
Opravljena Ekonometrija 2 na magistrskem programu Ekonomije na Ekonomski fakulteti v Ljubljani ali enakovreden predmet ter osvojena znanja predmetov iz metodoloških osnov Matematika za poslovne in ekonomske vede in Verjetnost in statistika Orientacija za predhodno znanje. Učbenika: Amemiya, T. (1994), Introduction to Statistics and Econometrics, Harvard University Press. Simon, C. P. in Blume L.E. (1994), Mathematics for Economists, W.W. Norton & Company.	Econometrics 2, MSc Economics, Faculty of Economics, Ljubljana, or equivalent, and knowledge of methodological foundation courses Mathematics for Business and Economics and Probability and Statistics Prerequisite textbooks: Amemiya, T. (1994), Introduction to Statistics and Econometrics, Harvard University Press. Simon, C. P. and Blume, L.E. (1994), Mathematics for Economists, W.W. Norton & Company.

Vsebina:	**Content (Syllabus outline):**

Napredna ekonometrična teorija • Uvod • Opisna linearna regresija • Klasični linearni regresijski model • Posplošeni linearni regresijski model • Normalni inearni regresijski model: ocenjevanje parametrov in preizkušanje domnev po principu največjega verjetja • Temelji asimptotske teorije • Asimptotska analiza posplošenega linearnega regresijskega model • Statistično sklepanje v posplošenih linearnih regresijskih modelih pri velikih vzorcih (robustno sklepanje) • Endogeni regresorji: ocenjevanje s pomočjo instrumentalnih spremenljivk in posplošene metode momentov	Advanced Econometric Theory • Introduction • Descriptive Linear Regression • The Classical Linear Regression Model • The Generalized Linear Regression Model • The Normal Linear Regression Model: Maximum Likelihood Estimation and Hypothesis Testing • Some Basics of Asymptotic Theory • Asymptotic Analysis of the Generalized Linear Regression Model • More on Large Sample Inference in the Generalized Linear Regression Model (Robust Inference) • Endogenous Regressors: IV and GMM Estimation

Temeljni literatura in viri / Readings:

Izhodišče za študij so predavateljeva skripta predavanj. Nadaljnje informacije o izbranih temah študenti najdejo s pomočjo referenc, na katere avtor se sklicuje v besedilu. Učbeniki, ki pokrivajo dele predmeta na ustrezni ravni zahtevnosti, so npr.: Hayashi, F. (2000), Econometrics, Princeton University Press. Rao, C.R. (1973), Linear Statistical Inference and its Applications, 2nd Edition, John Wiley and Sons. Ruud, P.A. (2000), An Introduction to Classical Econometric Theory, Oxford University Press.	A detailed set of lecture notes will be distributed that can be considered as primary necessary reading. For further readings on specific issues covered please consult the references in the lecture notes. Some examples of books covering parts of the material treated in the course at similar levels include: Hayashi, F. (2000), Econometrics, Princeton University Press. Rao, C.R. (1973), Linear Statistical Inference and its Applications, 2nd Edition, John Wiley and Sons. Ruud, P.A. (2000), An Introduction to Classical Econometric Theory, Oxford University Press.

Cilji in kompetence:	**Objectives and competences:**
Cilj predmeta je študentom ponuditi zadostno znanje statistike in ekonometrije, da bodo znali (a) uporabiti in kritično ovrednotiti zahtevnejše statistične in ekonometrične metode, (b) samostojno študirati in nadgrajevati statistične in ekonometrične metodologije, ki jih potrebujejo pri svojem razsikovalnem delu in niso bile podrobno predstavljene v okviru predmeta.	The objectives of the course are to provide students with the foundations in statistics and econometrics to (a) apply (high-level) statistical and econometric methods in an appropriate and critical way and (b) to equip students with the necessary pre-requisites to allow for further independent study of econometric methodology potentially required for own research projects even if the precise method required for a specific project has not been studied in the course.

Predvideni študijski rezultati:	**Intended learning outcomes:**

Znanje in razumevanje:	Knowledge and understanding:
• Poznavanje osnov teorije verjetnosti, matematične statistike in ekonometrije na napredni ravni. • Razumevanje in uporaba ustreznih ekonometričnih metod, potrebnih za izvajanje zahtevnega empiričnega raziskovalnega dela z različnih ekonomskih ved. • Predmet omogoča trdno osnovo za absorpcijo nadaljnjih naprednih in specializiranih ekonometričnih poglavij . • Študenti pri reševanju izbranih aplikativnih problemov pridobijo izkušnje z uporabo specializiranih ekonometričnih programov.	• Knowledge of basic probability theory, mathematical statistics and econometrics at a level appropriate for PhD students in Economics. • Solid basis for understanding and application of appropriate econometric methods necessary to conduct high level empirical economic research. • Students are prepared to follow advanced courses on specialized econometric topics. • Students have gained experience in applying the discussed econometric methods using appropriate econometric software.

Metode poučevanja in učenja:	**Learning and teaching methods:**
Predavanja, samostojen (ampak voden) študij na podlagi rednih analitičnih in računalniških vaj in domačih nalog, seminarska naloga	Lectures, independent (but supervised) self-study by means of regular pencil and paper as well as computer based exercise sessions, empirical assignments.

Načini ocenjevanja:	Delež (v %) / Weight (in %)	**Assessment:**
Način (pisni izpit, ustno izpraševanje, naloge, projekt) 70 % pisni izpit, 30% vaje		Type (examination, oral, coursework, project): Final exam: 70%, Exercises: 30%

Reference nosilca / Lecturer's references:

Prof.dr. Martin Wagner (Publications since 2012):

1. Wagner, M. and S.H. Hong (2015): *Cointegrating Polynomial Regressions: Fully Modified OLS Estimation and Inference.* Forthcoming in Econometric Theory.
2. Wagner, M. and J. Hlouskova (2015): *Growth Regressions, Principal Components and Frequentist Model Averaging.* Forthcoming in Jahrbücher für Nationalökonomie und Statistik.
3. Wagner, M. (2015): *The Environmental Kuznets Curve, Cointegration and Nonlinearity*. Forthcoming in Journal of Applied Econometrics.
4. Aschersleben, P., M. Wagner and D. Wied (2015): *Monitoring Euro Area Real Exchange Rates*. Springer Proceedings in Mathematics and Statistics **122**, 363 – 370.
5. Pedroni, P., T.J. Vogelsang, M. Wagner and J. Westerlund (2015): *Nonparametric Rank Tests for Non-Stationary Panels.* Journal of Econometrics **185**, 378 – 391.
6. Vogelsang, T.J. and M. Wagner (2014): *Integrated Modified OLS Estimation and Fixed-b Inference for Cointegrating Regressions.* Journal of Econometrics **178**, 741 – 760.
7. Hlouskova, J. and M. Wagner (2013): *The Determinants of Long-Run Economic Growth: A Conceptually and Computationally Simple Approach*. Swiss Journal of Economics and Statistics **149**, 445 – 492.
8. Vogelsang, T.J. and M. Wagner. (2013): A *Fixed-b Perspective on the Phillips-Perron Tests*.

Econometric Theory **29**, 609 – 628.

9. Bauer, D. and M. Wagner. (2012): *A State Space Canonical Form for Unit Root Processes*. Econometric Theory **28**, 1313 – 1349.
10. Schneider, U. and M. Wagner. (2012): *Catching Growth Determinants with the Adaptive LASSO*. German Economic Review **13**, 71 – 85.
11. Wagner, M. (2012): *The Phillips Unit Root Tests for Polynomials of Integrated Processes.* Economics Letters **114**, 299 – 303.