

Course program

Course title: Tools of Spatial Analysis	Neptun code: GTVGT4180A
	Course type: Required for specialisation
Name and position of course coordinator: Géza Tóth PhD, associate professor	
Name(s) and position(s) of teaching assistant(s):	
Suggested semester: 1 st , Autumn	Prerequisite course(s): -
Weekly lecture+seminar hours: 2+0	Evaluation method: submitted paper
Credits: 5	Study format: full time and part time
<p>Course objectives: The aim of the course is the practical demonstration of some methodological devices of the regional analyses on actual examples. It is also intended that the students acquire practical skills that they can apply in the doctoral preparation, as well as in the subsequent scientific work.</p>	
<p>Course content and structure: The course deals with some basic questions of spatial analysis, and then with the possibilities for the measurement of regional differences. We talk about the gravity and potential models and their use. We will talk about the opportunities of the measuring of spatial autocorrelation. We talk about the methodological and analytical aspects of accessibility. We talk about the multivariate regression and path model. Besides introducing the two-dimensional spatial regression analysis there will be presented some GIS assisted spatial analysis.</p>	
<p>Evaluation method:</p> <p><i>Course assignments:</i> The appearance of classes.</p> <p><i>Course point distribution, examination format:</i> Writing and presentation of an 18-20 page paper and in related topics</p>	
<p>Required reading: Nemes Nagy József (szerk.) (2005): Regionális elemzési módszerek. Regionális Tudományi Tanulmányok 11. ELTE Regionális Földrajzi Tanszék-MTA-ELTE Regionális Tudományi Kutatócsoport, Budapest Dusek Tamás (2004): A területi elemzések alapjai. Regionális Tudományi Tanulmányok 10. ELTE Regionális Földrajzi Tanszék-MTA-ELTE Regionális Tudományi Kutatócsoport, Budapest Tóth Géza (2005): Az autópályák szerepe a regionális folyamatokban. KSH, Budapest Tóth Géza (2013): Bevezetés a területi elemzések módszertanába, Miskolci Egyetemi Kiadó, Miskolc Dusek Tamás (2012): Bidimensional Regression in Spatial Analysis <i>Regional Statistics 2</i>: 61–73.</p>	
<p>Suggested reading: Nemes Nagy József (2009): Terek, helyek, régiók. A regionális tudomány alapjai. Akadémiai Kiadó, Budapest</p>	

Varga Attila (2009) Térszerkezet és gazdasági növekedés. Akadémiai Kiadó, Budapest.
Varga Attila (2002): Térökonometria *Statisztika Szemle* 80 (4): 354–370.
Pénzes János (2012): Changes in the Spatial Income Structure of North-eastern
Hungary After the Change of Regime *Regional Statistics* 2: 90–107