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201000025

## Land Use and Transport Interactions

### Course info

<b>Course module</b>	201000025	<b>Starting block</b>	2A
<b>Credits (ECTS)</b>	7.5	<b>Application procedure</b>	You apply via OSIRIS Student
<b>Course type</b>	Course	<b>Registration using OSIRIS</b>	Yes
<b>Language of instruction</b>	English	<b>Number of insufficient tests</b>	-
<b>Contact person</b>	dr. L.C. La Paix Puello		
<b>E-mail</b>	<a href="mailto:l.c.lapaixpuello@utwente.nl">l.c.lapaixpuello@utwente.nl</a>		
<b>Lecturer(s)</b>			
	dr.ing. K.T. Geurs		
<b>Lecturer</b>			
	dr. L.C. La Paix Puello		
<b>Lecturer</b>			

### Learning goals

Upon completion of the course the student is able to:

- to assess and discuss the quality of a journal paper in the field of land use and transport interactions
- to analyse and assess the interactions between land use, accessibility and transport using a GIS-based land-use/transport interaction model and compare model results with expectations based on theories of land-use and transport linkages
- to examine interactions between land use and public transport in Dutch planning practice, using statistical techniques

### Content

#### Background

Transport and land use are strongly interrelated. It is well-known that the quality of transport services influences the attractiveness of locations of activities (working, living, etc.). Land use density, diversity and neighborhood design influences transport demands. The links between land use and transport is however complex, difficult to disentangle from other factors, and in transport planning often ignored. The course focuses on transport and land use interactions in the Western world, in particular Europe and the United States, but attention will also be paid to the developing world.

This course contains three parts. Firstly, it treats theories and empirical evidence on land use and (passenger) transport interactions. This is done through a series of (regular and guest) lectures. Moreover, students will review and discuss a journal paper related to the topic of the course.

Secondly, the course deals with Land-Use and Transport Interaction (LUTI) models. Lectures will cover the main principles of LUTI models. Furthermore, students will conduct a scenario study and examine the land use, mobility and accessibility impacts of land use and transport policy strategies, using a GIS-based land-use/transport interaction model for the Netherlands

Thirdly, the course deals with the practice of integrated land-use and transport planning. Lectures will cover examples of accessibility planning and Transit Oriented Development (TOD) in the Netherlands. Students will write an examine StedenbaanPlus as a case study, including an analysis of governance issues and barriers for TOD around a StedenbaanPlus railway station.

### Assessment

Assignment 1: 40%  
Assignment 2: 30%  
Assignment 3: 30%

All assignments must have a grade of 5,5 or more.

### Assumed previous knowledge

Transport Policy and Planning

### PARTICIPATING STUDY

M-CEM

### Required materials

Articles  
Series of scientific articles  
Course material  
PDF publications

### Recommended materials

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### Instructional modes

Lecture

Practical (Required)

Self study without assistance (Required)

Tutorial (Required)

### Tests

Assignments

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