

Title of the whole course: 13003 ArcGIS and Transport Planning

Modelling and data analysis

Name of the Educational Test Site:

DTU: Centre for Traffic and Transport, Technical University of Denmark

Objective of the whole course

- To get an overview over the functionality in ArcGIS
- Provide the basis for the use of GIS in the advanced courses at CTT.
- The different modules in ArcGIS is introduced, and the underlying object model is introduced
- Use prior learned methods to evaluate a large scale road project
- Learn traffic assignment techniques for road traffic

Content of the whole course

- Introduction to GIS data modelling and design of geodatabases
- Use of ArcMap, ArcCatalog, ArcToolbox. Editing in ArcMap.
- Introduction to extensions; 3D analyses, spatial analyses and geostatistical analyses.
- Coding and traffic impact assessment of a road project in the Copenhagen Region after own choice.
- The project evaluation includes route choice calculations, simple accessibility analyses and assignment of traffic on the network

Which parts of PORTAL (project results) were taken up?

All the projects mentioned in the course material for modelling and data analysis are (or ought to be) in principle relevant for the course, and the students were accordingly given the whole report for evaluation

Which PORTAL material was used?

- The whole material is given to the students for self-evaluation as an exercise
- The students were given the report/written material for the theme Modelling and data analysis, and asked to give their judgement of the usability of the material
- Since the overheads only covered a fraction of the projects in the material – basically they were just copies of a few figures from the projects – they could not be used for a lecture

Separate / existing course	13003 ArcGIS and Transport Planning
Optional / compulsory course	Optional (almost all courses at DTU are optimal within certain group of courses)
Name of the corresponding curricula	M.Sc.
Participants' level	Level 7
Type of input	Lectures, self study under guidance
Number of participants	26
Timing	January, 2003
Exercises	Group work, problem based learning, specific case study
Language	Danish lectures, written material in English and Danish

Name of the teacher	Otto Anker Nielsen
- e-mail	oan@ctt.dtu.dk
- Phone number	(+45) 45 25 15 14
Website of institution and / or lecturer	Centre for Traffic and Transport: http://www.ctt.dtu.dk Course description: http://www.shb.dtu.dk/default.asp?detail=f&page=3&kurser=13003&lang=uk&retning=*
Language of lecturer	Danish (English if English students participate in the course)
Fields of expertise	Public Transport: Quality and Benchmarking Public Transport: Integrated Transport Chains Urban Traffic Management and Restraint Modelling and Data Analysis Pricing Mobility Management and Travel Awareness Inner Urban Freight Transport and City Logistics Transport and land use Policy Formulation and Implementation