

## Course Fundamental Knowledge on Transport, Infrastructure & Logistics

<b>Date:</b>	<b>7 &amp; 14 October, 4 &amp; 25 November 2020</b>
<b>Time:</b>	<b>10.00 – 16.00 h.</b>
<b>Location:</b>	<b>Utrecht</b>
<b>Course leaders:</b>	<b>Prof. dr. Bert Van Wee and Dr. Jan Anne Annema (DUT)</b>
<b>Days:</b>	<b>4</b>
<b>ECTS:</b>	<b>1 (participating)..- 4 (participating + assignment)</b>
<b>Course fee:</b>	<b>Free for TRAIL/Beta/OML members, others please contact the TRAIL office</b>
<b>Registration:</b>	<b><a href="http://www.rstrail.nl">www.rstrail.nl</a></b>

### Objectives

To give participants a general introduction into a) the transport system (which factors drive this system), b) the impact of the transport system on accessibility, safety and the environment, and into c) transport policy making and evaluation methods.

For those who do the assignment: link the knowledge explicitly to the topic of the PhD students' research.

### Course description

The course consists of four parts.

In Part I (1 day) we describe how the transport system is structured. The topics are:

- A general introduction explaining the structure of the course and the related book;
- the wants and needs of people which drive passenger transport;
- the needs of companies to transport goods;
- dominant land-use factors which drive the transport system.
- transport resistance factors (time, costs, effort) which interacts with the transport system.

In Part II (1 day) impacts of the transport system on accessibility, the environment and safety are discussed:

- Traffic flow theory (final course of Part I)
- Transport technology to reduce transport's negative impacts
- Accessibility
- Transport and the environment
- Traffic safety

Part III (1 day) gives an introduction in transport policy and related research. The reasons why governments develop transport policies will be explained. Cost-Benefit Analysis (CBA) and Multi Criteria Analysis (MCA), the two most important methods to ex ante evaluate candidate policy options will be treated. Finally, some dominant transport models and their applications will be discussed.

- Transport policy
- Transport futures research
- Appraisal methods for transport policy
- Transportation models and their applications

Part IV (1 day – at least for those who do an assignment; others: on voluntary basis). Participants present the outline of their assignment. In the group the assignments will shortly be discussed.

## Assignment

You will be asked to relate your PhD topic to the transport system (part I), to the impacts (part II) and to policy issues (part III).

## Program

### **Day I – 7 October 2020**

10:00 – 10:45	Introduction and structure of the course (Bert van Wee)
11.00 – 11:45	The wants and needs of people (Bert van Wee)
12:00 – 12:45	The want and needs of shippers (Bert van Wee)
12:45 - 14:00	lunch
14.00 - 14.45	Land-use factors (Bert van Wee)
15:00 – 15:45	Transport resistance (Jan Anne Annema)

### **Day II – 14 October 2020**

10:00 – 11:15	Traffic flow theory
11.25 – 12:10	Impacts on accessibility (Bert van Wee)
12:15 – 13:00	Impacts on safety (Jan Anne Annema)
13:00 - 14:00	lunch
14.00 - 14.45	Transport technology (Jan Anne Annema)
15:00 – 15:45	Impacts on society (Jan Anne Annema)

### **Day III – 4 November 2020**

10:00 – 10:45	Reasons for transport policy (Jan Anne Annema)
11.00 – 11:45	Transport futures research (Jan Anne Annema)
12:00 – 12:45	Dominant ex ante policy evaluation methods (Jan Anne Annema)
12:45 - 14:00	lunch
14.00 - 14.45	Transport models and applications (Bert van Wee)
15:00 – 15:45	Questions and answers; assignment instructions

### **Day IV – 25 November 2020**

10.00 – 16.00	Presentations of outlines of assignments, and discussion
---------------	--

Depending on the number of attendees: maybe 10-12:45: participants prepare a brief PowerPoint - optional together with an employee of the Ministry - relating their PhD topic or to the transport system, the impacts and the policy-making process. Presentations and discussion between 13:45 – 16:00

16.00u	Drinks
--------	--------

## Methodology

Conceptual modelling, analytical thinking, reading and interpreting literature

## Course material

The course will be based on 'The Transport System and Transport Policy – An Introduction' (Van Wee, Annema, Banister 2013). A copy will be handed out at the beginning of the course.

## Prerequisite

None