

Course Theories & Methods

Date:	31 March, 4 April, 11 April, 18 April 2016
Time:	31 March: 09.30 – 13.00 / other days: 10.00 – 16.00 h.
Location:	t.b.a.
Course leader:	Prof. Vincent Marchau
Lecturers:	Dr. Sander van Cranenburgh, Dr. Andreas Hegyi, Dr. Victor Knoop, Dr. Niek Mouter, Prof. René de Koster
Days:	3
ECTS:	1 (attendance) / 3 (attendance + assignment)
Course fee:	Free for TRAIL/Beta/OML members, others please contact the TRAIL office
Registration:	www.rstrail.nl

Objectives

To support PhD students with their theoretical framing and methodological choices when doing their PhD research. PhD students are first given a quick overview of various theories and methods in the areas of Transport, Infrastructure and Logistics (TIL) and a basic understanding of some particularly relevant theories and methods in the areas of TIL. This allows them also to determine which other specialized courses might be interesting for them to follow at a later stage.

Course Description

On the Introduction day an overview of (some) dominant theories and methods used in the T, I, and L-domain will be presented and discussed, as well as a brief explanation of the assignment.

In the area of transport the focus will be on: (1) discrete choice models & stated choice data collection, (2) activity based theories and models.

In the area of infrastructure the focus is on (1) Traffic Flow Theory, (2) Traffic Management and Control, (3) Dynamic Assignment Models and (4) Public transit operations and control

In the area of logistics the focus is on: (1) Theory related to Critical Performance Indicators, trade-offs logistics and operations, (2) Distribution networks, (3) Supply Chain Management: aligning incentives, and (4, optional): impact of behaviour on logistics

Assignment

A paper, summarizing the theoretical and/or methodological setup of (parts) of the PhD student's research (i.e. a draft chapter 2 of the student's PhD thesis).

Program & Location

Day 0 - 31 March: Introduction (Prof. Vincent Marchau)
 Day 1 - 4 April: Transport (Dr. Sander Cranenburgh, Dr. Niek Mouter)
 Day 2 - 11 April: Logistics (Prof. René de Koster)
 Day 3 - 18 April: Infrastructure (Dr. Andreas Hegyi, Dr. Victor Knoop)

Course material

This will be specified at Day 0

Prerequisite

Basic knowledge of statistics and Operations Management, this will be further specified at Day 0.