

Course Manual

Metropolitan Transportation Planning

Course Catalogue Number

736410080Y

Credits

6/EC

Entry requirements

No entry requirements for Master Urban and Regional Planning students

Instruction language

English

Time Period(s)

Academic year 2012/2013, semester 1, block 2

Location

The first meeting will be held on Monday 29 October, from 9:00 to 11:00, in room REC GS.14. For other meetings see <https://rooster.uva.nl/> and programme below.

Lecturer(s)

-Luca Bertolini, coordinator, e-mail l.bertolini@uva.nl, telephone 020-5254007, room N 1.18 - meeting following appointment by e-mail or telephone

-Ren Thomas, e-mail r.thomas@uva.nl, telephone 020-5253980, room N 1.1

Course Objectives

The objective of this course is to give students the professional skills to plan transport in a metropolitan environment. These skills will be based on a thorough knowledge of transport planning and related approaches in transport research disciplines. The application of these skills will be positioned within the context of the governance issues characterizing decision making processes in metropolitan transport planning. Each of the major paradigms in transport planning will be introduced, with a focus on paradigms not addressed in other parts of the Master curriculum. At the end of the course students will have knowledge of planning and policy-making methods, i.e. problem analysis (forecasting and evaluation), design of innovative solutions and process management aimed at decision-making in metropolitan transport planning. They will be able to distinguish and manage the different roles of planners in transport, traffic and infrastructure issues in relationship to spatial planning.

The course contributes to the following aims of the Master in Urban and Regional Planning: K4, T1 to T7, C1, C4, O1 and O2.

Course Content

The development of cities and of transport systems are deeply intertwined. A major contemporary challenge, and one which will be central in the course, is how to ensure that this development becomes sustainable. In practice, metropolitan transport planning is performed by various disciplines. All of them have their own approach or paradigm. Working in interdisciplinary teams is typical for metropolitan transport planners. The following 5 guiding paradigms are designated as a basis for transport planning and as building blocks of the course :

- the system analysis approach of (technical) system equilibrium and evolution, as a framework for logical and model-based work;
- the individual behavioral demand analysis approach based on maximization of utility, as applied in modeling and forecasting traffic and transport;

- the multi-disciplinary, pragmatic supply analysis approach focusing on assessing system performance;
- the (welfare) economic approach aiming at social-economic efficiency, specified in social cost-benefit analysis for large infrastructure investments (OEI method);
- Finally, the planning approach integrating different paradigms (including paradigms taught in other courses) and a normative point of view to tackle a complex planning problem, resulting in a substantive strategy (the "what") and an associated process architecture (the "how").

Furthermore, the students will be encouraged to integrate insights from a sixth paradigm, which will not be addressed explicitly in the course as it is extensively treated in other parts of the Master curriculum:

- the (public) management science approach aimed at satisfying different interests in decision-making processes and interactive planning

Teaching methods/learning formats

A variety of teaching methods will be applied including lectures, seminars, and guest tutorials. The emphasis is on self-study through alternately working in groups and individually on actual theories and cases. There are 2 main streams that form the course. The first stream, with a theory focus, will alternate sessions where a new theme/discipline/paradigm will be introduced by the course coordinator and a guest-expert (indicated as 'lecture' / LE in the program below), and sessions where theories and/or methods will be applied and links will be drawn to the more critical/innovative literature on the subject ('application and reflection', A&R in the program). In the second stream, with a practice focus, the students will work independently in groups (4 students per group) on a complex metropolitan transportation planning issue in the Netherlands, and the lecturers will supervise the process by means of feedback to student presentations ('presentations and feedback', P&F in the program).

Course Evaluations & Adjustments of the Course

The course was restructured last year following earlier critiques and the students were very positive about the outcome, giving the course an overall 7.8 mark in Evasys. However, because of broader changes in the Master curriculum we had to adapt the program once again. In particular, we had to account for the switch from 10 to 6 EC, from 3 periods to 1 period, and from around 30 to around 40 students. In the process we have tried to maintain what the students appreciated and to follow their suggestions for improvements.

Most important points were:

- preserve the underlying philosophy (combination of theory and application, lectures and discussions, mainstream and critical/innovative views)
- be clearer about what is more and less relevant study material
- do not explicitly address process management issues, as this is already done extensively in other parts of the Master curriculum
- provide instructions for carrying out the assignment at the start of the course
- allow for more words in the assignment

Manner & Form of Assessment and Assessment Requirements & Criteria

The first stream will be assessed by means of a written examination (determining 65% of the final grade); the second stream by means of a group paper (determining 35% of the final grade). The examination will take place on Thursday, 13 Dec, 9:00-12:00. The deadline for the paper is Friday 7 Dec, 17:00. The paper has to be delivered digitally by e-mail to r.thomas@uva.nl and to l.bertolini@uva.nl, and on paper in the pigeon hole of Ren Thomas. A minimum grade of 5,5 for each of these assessments will be required to pass the course. Those failing the examination can have re-try on Thursday, 2 May, 13:00-16:00. Those failing the paper can revise and resubmit it by Friday, 21 Dec, 17:00. The grade of the examination will be communicated within 15 working days of the examination date. The grade of the group paper by Friday, 14 Dec.

Requirements and criteria concerning lectures, application and reflection sessions, and examination

We assume participation of the students in both 'lectures' and 'application and reflection' sessions. Participation includes studying the relevant literature beforehand and engaging in on-the-spot applications.

Participation will be not controlled formally. However, also knowledge of presentations and discussions during the sessions, not only of the literature, will be tested in the written examination. Furthermore, the sessions are essential in understanding how to study the literature.

Requirements and criteria concerning presentation and feedback sessions and group paper

We assume equal contribution of group members to the paper. In particular, all the students in the group must be present when the group presents their work. In principle, the same grade will be given to all students in the group. However, if some group members feel not everybody is contributing equally, the course coordinator should be contacted so that a different arrangement can be made. Please contact the course coordinator as soon as problems emerge.

The group paper must be delivered on time. If it is not, and up to two days of delay, one point (out of 10) will be subtracted from the mark. In the case of more than two days of delay the paper will not be graded and the group will be automatically deferred to the re-try deadline. The same applies to groups not achieving at least a 'pass' (5,5). No additional feedback will be provided to groups having to recur to a re-try.

The group paper should be written according to the Guidelines for creating academic reports (see "Handleiding en Richtlijnen- Master Sociale Geografie- Universiteit van Amsterdam.").

Detailed instructions for the group paper, including assessment criteria are in the appendix 'group assignment' below.

Inspection of exams/assignments, feedback

After communication of the grades, students can require inspection of the examination by making an appointment with Ren Thomas (see contact information above). Lecturers will give directions for the study of the literature during the 'lecture' sessions, and feedback during the 'application and reflection' sessions.

Written comments will accompany the grade of the group paper. These comments also provide the basis for an improved version, if this shows necessary. If more explanation is felt needed, the group can make an appointment with Ren Thomas. Lecturers will give directions for the group paper during the introductory session and the guest lecture on metropolitan transportation planning issues in the Netherlands, and will provide feedback during the 'presentation and feedback' sessions.

Rules regarding Fraud and Plagiarism

The provisions of the Regulations Governing Fraud and Plagiarism for UvA Students apply in full. Access this regulation at <http://www.student.uva.nl/preventfraud-plagiarism>. For this purpose a check with Ephorus may be performed.

Specification workload

The total course load is 6 EC credits or 168 hours. It will be approximately be distributed as follow:

- contact = 24 hours
- paper = 50 hours
- literature study = 94 hours

We have designed the course to provide an even spread of work throughout the period. We expect, however, also some self-discipline on the part of the students.

Literature/materials

- 1) A selection of chapters from: Meyer, M.D. and E.J. Miller (2001) *Urban Transportation Planning. Second Edition* New York: Mc Graw Hill (NB: this book is out of print, with permission of the author, we have put pdf of the relevant chapters on blackboard)

2) The articles in the literature list below. These articles can be downloaded through the university library search website. (NB: you have to be in a University of Amsterdam digital environment to be able to access most articles)

At the examination we expect that the student will have studied:

- Selection of chapters 1, 2, 3, 5, 7 and 8 of Meyer and Miller (see for more details the literature list below)
- The articles in the literature list below
- The PowerPoint presentations of the lecturers and guests

Date Final Grade

We will communicate the final grade by e-mail and blackboard after grading the examinations, or 20 working days after the examination date.

Programme

Week	Date & time	Location	Activity	Contents	Lecturers
44	Mo 29 Oct, 9:00-11:00	REC GS.14	LE	Introduction & instructions	Luca Bertolini
	Thu, 1 Nov, 14:00-17:00	REC GS.08	LE	System analysis/ Models in planning	Luca Bertolini, Marco te Brömmelstroet
			LE	Current issues in the Netherlands	Thomas Straatemeier
45	Mo 5 Nov, 9:00-11:00	REC GS.14 REC GS.01B	A&R (two parallel sessions)	System analysis/ Models in planning	Luca Bertolini, Ren Thomas
	Thu 8 Nov, 14:00-18:00	REC GS.08	P&F	Presentation: <i>what is the problem?</i>	Luca Bertolini, Ren Thomas
46	Mo 12 Nov, 9:00-11:00	REC GS.14	LE	Demand analysis	Luca Bertolini, Ori Rubin
	Thu 15 Nov, 14:00-16:00	REC GS.08 REC GS.04	A&R (two parallel sessions)	Demand analysis	Luca Bertolini, Ren Thomas
47	Mo 19 Nov, 9:00-11:00	REC GS.14	LE	Supply analysis	Luca Bertolini, Ren Thomas
	Thu 22 Nov, 14:00-16:00	REC GS.08 REC GS.04	A&R (two parallel sessions)	Supply analysis	Luca Bertolini, Ren Thomas
48	Mo 26 Nov, 9:00-13:00	REC GS.14	P&F	Presentation: <i>what is the solution?</i>	Luca Bertolini, Ren Thomas
	Thu 29 Nov, 14:00-16:00	REC GS.08	LE	Evaluation	Luca Bertolini, Els Beukers
49	Mo 3 Dec, 9:00-11:00	REC GS.14 REC G S.01B	A&R (two parallel sessions)	Evaluation	Luca Bertolini, Ren Thomas
	Mo 3 Dec, 11:00-12:00	REC GS.14	LE	Course evaluation	Luca Bertolini
	Fri 7 Dec, 17:00: paper deadline!!!				
50	Thu 13 Dec, 9:00-12:00, room D 1.09 (Oudemanhuispoort): examination!!!				
51	Fri 21 Dec, 17:00: paper re-try deadline!!!				
18	Thu, 2 May, 13:00-16:00, room REC M 1.01: examination re-try!!!				

LE = Lecture; A&R = Application and reflection; P&F = Presentations and feedback.

Literature, per session

Monday 29 October: Introduction

a) Meyer & Miller, chapter 1 (pp. 1-40), selection of chapter 2 (only pp. 75-80)

b) May, A., and G. Marsden (2010) Urban transport and mobility. Background paper for the 2010 International Transport Forum, on 26-28 May in Leipzig, Germany. (NB: this document can be freely accessed on the internet: <http://www.internationaltransportforum.org/Pub/pdf/10FP05.pdf>)

c)Wilson, R. (2001) Assessing communicative rationality as a transportation planning paradigm. *Transportation*, 28 (1), 1–31.

Thursday 1 November: System Analysis/Models in Planning

a)Meyer & Miller, chapter 3 (pp. 89-178)

b)Te Brömmelstroet, M., and L. Bertolini (2010) Integrating land use and transport knowledge in strategy-making. *Transportation*, 37(1), 85-104

c)Jones, P. (2011) Developing and Applying Interactive Visual Tools to Enhance Stakeholder Engagement in Accessibility Planning for Mobility Disadvantaged Groups. *Research in Transportation Business and Management*, 2, 29–41.

Monday 12 November: Demand Analysis

a)Meyer & Miller, selection of chapter 5 (only pp. 247-292; 303-332)

b)Næss, P., and A. Strand, A. (2012) What kinds of traffic forecasts are possible? *Journal of Critical Realism*, 11(3), 277-295. (NB: this article is not available through the library, and will be sent as pdf with permission of the author)

Monday 19 November: Supply Analysis

a)Meyer & Miller, selection of chapter 7 (only pp. 385-400; 445-481)

b)Jones, P., and K. Lucas (2012) The social consequences of transport decision-making: clarifying concepts, synthesising knowledge and assessing implications. *Journal of Transport Geography*, 21(1), 4-16

Thursday 29 November: Evaluation

a)Meyer & Miller, chapter 8 (pp. 483-563)

b)Mackie, P., and J. Preston (1998) Twenty-one sources of error and bias in transport appraisal. *Transport Policy*, 5(1), 1-7

c)Beukers, E., L. Bertolini, and M. Te Brömmelstroet (2012) Why Cost Benefit Analysis is perceived as a problematic tool for assessment of transport plans: A process perspective. *Transportation Research Part A: Policy and Practice*, 46(1), 68-78

Appendix: group assignment instructions

Setting

Students will work in groups. Each group is made up of 4 students, with at least two Dutch speaking student (in order to have access to all the relevant information). Each group acts as a metropolitan transportation planning consultancy, hired by the metropolitan authority to help tackle a complex planning issue. Each group must choose an issue to tackle among those introduced by Thomas Straatemeier on Thursday, 1 November.. A maximum of three groups can choose the same issue.

Steps

The assignment should be developed along the following steps:

- 1) **Problem definition:** What is the problem? Why is it a problem? For whom is it a problem?
For this step, notions and tools from public management science, as learnt in other parts of the Master curriculum, can be useful
- 2) **Problem analysis:** What are the causes of the problem? How can they be affected? Which role can transport and land use policy interventions play?
For this step, notions and tools from paradigms 1 (system analysis) can be useful
- 3) **Solution generation:** What is the solution? Why is it a solution? In which measure is it a solution? How certain of its effectiveness are we?
For this step, notions and tools from paradigms 2 (demand analysis) and 3 (supply analysis) can be useful
- 4) **Solution implementation:** What is required for the implementation of the solution? Who should do what when? What are threats along the way? How to deal with these?
For this step, notions and tools from public management science and paradigms 1 can be useful
- 5) **Reflection:** How does the proposal relate to the knowledge from block 1? Which knowledge has been used and which not? Why? Has knowledge not considered in the MTP course shown important? What are the implications for education and research in metropolitan transportation planning?
For this step, all paradigms, and also including paradigm 4 (evaluation/welfare economics) can be useful

In doing the assignment the students will be, in principle, free to choose among the themes/disciplines/paradigms introduced in the theory stream. However, they should at least consider other themes/disciplines/paradigms. In other words: students might end by not using everything they learned in the theory stream only if they are able to show that they can still solve the problem. This will be a main area of concern for lecturers when giving feedback.

Output

The final product is a **paper of maximum 10.000 words**, making appropriate use of text, figures, maps and tables and including a literature list.

Assessment criteria

Specific criteria:

- Is the **problem definition** clear and supported by evidence? Is the problem relevant and challenging?
- Is the **problem analysis** sound? Does it give insight in critical factors and relationships?
- Is the **solution** clearly related to the problem? Is it innovative? Is it realistic?

-Does the **implementation** strategy acknowledge and convincingly address the social, economic and political complexities of planning practice?

-Have the different MTP paradigms been used appropriately? If they have not been used, or other paradigms have been used, does the **reflection** clarify why?

General criteria:

-Is the **argumentation** clear and consistent?

-Is there evidence of **original insights** and of a critical and creative attitude?

-Is the paper **easy to read** and correctly written? In particular, do text, figures and tables complement each other?

-Is the paper written according to the **guidelines for scientific publications**? In particular, are literature references appropriate and correctly reported?

Important dates

- Thursday, 8 November, 14:00-18:00, 1st presentation: What is the problem?

- Monday, 26 November, 9:00-13:00, 2nd presentation: What is the solution?

- **Friday, 7 December 7, 17:00, deadline** (NB: The paper has to be delivered digitally by e-mail to r.thomas@uva.nl and to l.bertolini@uva.nl, and on paper in the pigeon hole of Ren Thomas)

- **Friday 21 December, 17:00, re-try deadline!!!**

Schedules and instructions for presentations will be circulated when the groups are known