Semester description of Mobilities and Urban Studies MSc1 study programme at Aalborg University

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<tr>
<td>The Mobilities Turn</td>
<td>Mobility Technologies and Infrastructures (5 ECTS)</td>
<td>Analysing Contemporary Mobilities (15 ECTS)</td>
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<td>From September 1 - 30</td>
<td>From 6/10 - 18/11</td>
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<tr>
<td>Mobility Technologies and Infrastructures (5 ECTS)</td>
<td>Applied Philosophy of Science and Mobile Methods (5 ECTS)</td>
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<td>From 6/10 - 18/11</td>
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**Semester details**
School: School of Architecture, Design and Planning
Study board: A-Study Board
Study regulations code: IMS70141

**Semester framework theme**
The semester theme put focus on the theories and concepts within the ‘Mobilities Turn’. Furthermore, the theme aims at qualifying the students understanding of contemporary mobilities with a particular emphasis on the vernacular, mundane and everyday life-oriented.

**Semester organisation and time schedule**
The semester is organised in a manner so that the three course modules will support the project in the best possible way. Also there will be plenary sessions in the project module ensuring a collective learning environment. Prior to the semester start in September the international students will be offered a course in the specific didactic approach from Aalborg University – the ‘Aalborg Model’. This is based on project organised student work and problem-based-learning (PBL).

**Prerequisites:** A BSc degree (Bachelor) in social science, humanities or engineering

**Semester coordinator and secretariat assistance**
Semester Coordinator, Professor Ole B. Jensen and Study secretary: Louise Kollerich Pratas
**Project module description**

<table>
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<th>Title: Analysing Contemporary Mobilities (15 ECTS)</th>
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<tr>
<td>Analyse af nutidige mobiliteter</td>
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<th>Module coordinator</th>
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<td>Professor Ole B. Jensen, AD:MT</td>
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<td>Project module</td>
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<td>English</td>
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**Objectives**
The objective is to strengthen the student’s ability to understand and analyze empirical cases of contemporary mobilities (e.g. transit spaces, urban everyday life mobility, virtual mobility and communication) in light of the cross-disciplinary ‘mobilities turn’. The project aims at giving the student the opportunity to apply theories and methods from the ‘mobilities turn’ with a particular focus on the societal needs and challenges related to technological infrastructures, policy and management.

Students who complete the module:

**Knowledge**
- Must have knowledge about state of the art theories and methods of the ‘Mobilities turn’
- Must be able to understand key societal challenges related to technologies and policies of contemporary mobilities

**Skills**
- Must be able to apply theories and methods of the ‘Mobilities Turn’ to empirical cases of contemporary mobilities analysis
- Must be able to evaluate policies and management proposals related to organize contemporary mobilities

**Competencies**
- Must have competencies to make proposals for contemporary mobility projects and assess their implementation effects

**Type of instruction:** Project work based on PBL, supervision, and plenary sessions

**Exam format:** Oral examination based on submitted project work. Internal evaluation by 7-scale

**Evaluation criteria:** Are stated in the Framework Provisions

**Academic content and basis**
The objective is to strengthen the students’ ability to understand and analyse specific cases of contemporary mobilities in the light of the cross-disciplinary ‘mobilities turn’ and related to the theme of ‘Everyday Life Mobilities’.

**Submission**
The project is to be submitted on January 6 2015 between 08.00 and 10.00.

**The report must contain:**
Minimum 25,000 words, maximum 40,000 words
Structure of written report containing the following elements:
1. A clear and operational research question (RQ) within the theme frame of the semester
2. Reflections over applied method and position within philosophy of science
3. Adequate theory discussion and operationalization in relation to the chosen RQ
4. Analysis of empirical case within everyday life mobilities
5. Clear conclusion and perspectives for further research
6. Bibliography

All printed submissions must be no larger than A4-format.

NB: See the general submission requirements in the Board of Studies Moodle page.

**Evaluation format P – Project module with internal examination**
(See Curriculum for the Master’s Program in Architecture and Design).
The module is assessed by an oral assessment based on written project report. It is further presumed that the student has regularly and actively participated in evaluation seminars and the like.
The assessment is an internal oral examination based on the 7 point scale.
The written material for submission is submitted in physical form to the semester secretary.

**Exhibition material**
All project groups must hand in one A0 poster for the Architecture & Design Autumn Exhibition.
The poster must contain a short description of the project’s key questions, theories, methods, and findings.
The poster should contain images/visuals as well as text.

**Project Description: Analysing Contemporary Mobilities**
The project has as the general object to strengthen the student’s ability to understand and analyze specific cases of contemporary mobilities in the light of the cross-disciplinary ‘mobilities turn’. The project may be seen as an opportunity to explore in more details some of the theories presented at the ‘Mobilities Turn’ course (even though this is evaluated on its own terms in accordance with the formal regulations). By taking part of departure in the organization of mobilities within the thematic frame of the ‘everyday life’ the project seeks to involve, motivate and inspire the students to create an analysis of elements close to their own personal experience. In accordance with the basic learning philosophy of Aalborg University the project work is organized in groups where the group is problem-oriented (PBL) with a self-elected theme within the overall frame of everyday mobilities. As this is the first project in the Mobilities Master the appropriation of theories and concepts within the ‘mobilities turn’ are thought to be facilitated by taking point of the mundane practices of everyday life mobilities. Moreover, the theme is deeply anchored in the existing research within C-MUS in general and under the framework of ‘situational mobilities’ studies in particular. The project must contain an analysis of a chosen type of everyday life mobility (commuting, urban strolls, recreational movement). The empirical focus is developed in collaboration with the supervisor, but the project must relate to an example of everyday life mobility within one of these three fields: Physical movement, digital mobility, or policy making. This means for example that the project can focus on the physical movements by children families or the commuting practices of multimodal transportation chains; or it may concern how digital technologies affords and mediate everyday life mobilities; or the project may include policies governing everyday life mobilities such as traffic regulation, urban plans or other types of regulatory frameworks. In common is, however, that the project must take point of departure in the everyday life mobilities. In empirical terms the project should address some examples of ‘situational mobilities’ in the everyday life and then relate these to either the physical, the digital or policies.

**Project theme catalogue:** The choice of empirical case is up to the student project group and the supervisor. Here shall be listed a few potential project ideas as a tentative catalogue of ideas. Please also bear in mind that the proposed ideas below may be combined into other types of project proposals;

**Children families and coping with daily mobility**
Analysis of how families with smaller children cope with the challenges of organizing their mobilities practices and patterns
Design guidelines
Exploring in physical detail how specific design guidelines for e.g. a transit space, a shopping mall or a public space creates affordances and hindrances

Disabilities and challenged mobilities
Analysis of disabled citizen groups and how they cope with mobilities challenges in the everyday life

Rural/outskirt mobilities
Explore how peripheral areas are coping with challenges of low growth, demographic decline and everyday life mobilities

Commuting practices
Analysis of how particular commuter groups (from car to mass transit) organize their everyday life commutes and how these are reflections of cultural, social, economic and material conditions

Touristic sites and mobilities
Analysis of how touristic sites are configured in relation to networks and flows of mobilities with a particular emphasis on local residents

Municipal traffic plans and their repercussions
Analysis of how for instance a municipal traffic plan configures specific mobilities patterns for citizens and inhabitants

Food miles - politics and practices of food distribution
Explore how food and mobilities configures as for example in how cities are being fed or how certain goods travel

The ‘Sunday trip’
Explore how recurrent practices of leisure mobilities are significant features of mobile cultures in the everyday life

Mobilities and the digital realm
Explore how new networked technologies affords everyday life mobility as well as discuss ‘digital divide’ critiques

Smart City and mobilities
Explore the new global agenda of ‘smart city’ development projects and policies and how it may affect cases of lived everyday life

Multimodality in practice
How are multimodal travel-chains configured and reasoned in the everyday life mobility?

Methods
The main project is based on theories within the ‘mobilities turn’ and usage of adequate methods in relation to the specific RQ (qualitative methods as interview, observations etc. as well as quantitative such as municipal statistics, traffic counting and calculations etc.). Literature studies within the field of the ‘Mobilities turn’.

Bibliography and references (students will be guided by the supervisors to read selected parts of this literature)

Scope and expectations
The project module contains a student work load of 450 hours. These will mainly be related to the project group work with literature review and empirical analysis, as well as plenary discussions.

Module activities (course sessions etc.)
The organization of the project module takes place in close collaboration and dialogue between the study
groups and their assigned supervisors. The semester coordinator has ensured for plenary sessions to create cross-learning situations.
Course module description

Title: The Mobilities Turn (5 ECTS)  
Mobilitetsvendingen  
*Activity code: IMS770002L*

Location  
MSc 1  
A-Study board

Module coordinator  
Professor Ole B. Jensen, AD:MT.

Type and language  
Subject module  
English

Objectives  
The objective is to introduce the students to the new ‘Mobilities Turn’ as an innovative approach to contemporary mobilities. The course introduces key thinkers and the theoretical state-of-the-art in mobilities research. The course also introduces to the international scientific community of mobilities research by explaining about international mobilities researcher’s network, centers and Journals. The first phase of the course contains lectures as a general introduction to the ‘mobilities turn’ and some of its key thinkers and approaches. The lectures are followed in phase two by student’s text presentations within thematic subjects of relevance to mobilities research. The third phase of the course contains 3 workshops: Workshop I devoted to the discussion of how to ‘use’ theory in reflection, analysis and empirical work. Workshop II focuses on mobilities and moving images. Workshop III works with the four cases from the ‘Designing Mobilities’ book. After the workshops the fourth and final phase of the course is dedicated to essay writing.

According to the general curriculum students who complete the module must:

**Knowledge**  
- have knowledge about the theoretical state of the art within the ‘Mobilities turn’  
- be able to understand and identify key thinkers and concepts within the ‘Mobilities turn’

**Skills**  
- be able to discuss and compare key theories within the ‘Mobilities Turn’  
- be able to evaluate advantages and challenges to different theoretical positions within the ‘Mobilities turn’

**Competencies**  
- have competencies to make designs for analysis of contemporary mobility projects by operationalization of mobilities theories

Type of instruction: Lectures, supervision, and plenary sessions

Exam format:  *Ld* - Written essay assignment

Evaluation criteria: Individual essay graded on 7-scale

Place and Date  
The essay must be uploaded to the submission folder in the course module room by **Monday 29 of September at 10.00, 2014**.

Access to the upload folder will be closed at the deadline.  
The file has to be one pdf-file of max. 50 MB and must specify your name; for example jensnielsen.pdf.  
The formal and legally valid hand in is by upload to the submission folder. Therefore, if the submission does not take place by the deadline, the student will have used an examination attempt.
Academic content and basis
State-of-the-art mobilities theories from the international research community as well as key contributions from C-MUS researchers at Aalborg University.

Scope and expectations
The course module contains a student work load of 150 hours divided into readings and lecture preparation, lecture presentations, group work assignments, workshop participation and plenary activity. The students are encouraged and expected to prepare for the lecture by reading the literature in advance of the lecture in order to provide the ideal conditions for an informed dialogue about the course themes.

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<td>Workshop I: Theory operationalization</td>
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<td>Workshop II: Mobilites and moving images</td>
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<td>Workshop III: Designing Mobilities</td>
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<td>4th</td>
<td>Essay</td>
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150-hours workload distribution (approximate)
Lectures = 20 h
Lecture preparation = 60 h
Workshops 21 h
Essay Writing = 37 h
Self-study (secondary refs) = 12 h
Total 150 h

Module activities (course sessions etc.)
Unless marked with ‘S’ for ‘secondary’ all readings are primary and expected to be read prior to the lectures.

1st Phase: Mobilities Turn Lectures
The first five lectures introduces to the ‘mobilities turn’ and its key concepts and thinkers.

Lecture 1: General introduction to the ‘mobilities turn’
In this very first lecture the ‘mobilities turn’ is presented. The lecture aims at establishing a rough map of the new ‘turn’ by illustrating the cross-disciplinary nature of the ‘turn’. The lecture also identifies the intellectual infrastructure of the ‘turn’ in the form of key Journals, Research Centers and Networks as well as conferences.

Readings
Vannini, V. (2010) Mobile Cultures: From the Sociology of Transportation to the Study of Mobilities, Sociology Compass, 4/2, 111-121
Lecture 2: Nomadism, sedentarism and mobility/motility
The lecture explores some of the key concepts such as nomadism, sedentarism and mobility versus motility that plays a pivotal role within the ‘mobilities turn’. The lecture also discusses their philosophical underpinnings.

Readings
Kellerman, A. (2012) Potential Mobilities, Mobilities 7(1), 171-183 (S)

Lecture 3: Networked Technologies and the ‘digital world’
This lecture takes point of departure in an understanding of mobility as an important cultural dimension to contemporary life. The movement of objects, signs, and people constitutes material sites of networked relationships. In understanding the importance of mediation, global-local interactions, networks, and the distributions of meaning and mediated discourses this way of thinking about mobilities argues for the importance of including pervasive computing and situated technologies.

Readings

Lecture 4: Critical Points of Contacts (CPC) and Geosemiotics
This lecture explores two theoretical and operational concepts. The notion of ‘Critical point of Contact’ is the topic for the first part of the lecture. In particular the focus is on the ‘moment of truth’ whereby connectivity becomes crucial (critical) to particular design outcomes. This second part of the lecture presents the analytical framework of ‘geosemiotics’. In particular the focus is on how places are embedded in semiotics systems and discourses, and how strategic points become ‘semiotic aggregates’ with strong affinity to the notion of CPC.

Readings

Lecture 5 Staging Mobilities – framing place, sociality and embodiment
In this lecture the ‘Staging Mobilities’ (SMOB) framework is explained in more detail. The SMOB framework put focus on mobile situations as they are spanned out between place, sociality and embodiment. The lecture provides examples of how to think in operational terms and applying the model.

Readings

2nd Phase: Student text presentations
At the beginning of the course the students will select texts to present either as individuals or in groups. All presentations must include a Power Point presentation. Each text presentation should first of all contain a review of the central points and contributions from the particular text to the mobilities research field (e.g. theoretically, methodologically, or empirically). Secondly, it must contain a critical evaluation and discussion of the text and its contribution. Thirdly, the presentation must include some empirical reference/example as a means of facilitating a discussion about theory operationalization and application. Each text presentation should be around 15-20 minutes allowing for follow-up questions within a 30 minutes time frame. After all the
singular text presentations a general plenary discussion will take place ensuring that cross-references between the texts are made. All the text presentation sessions contain three key texts.

**Student text presentation 1: The local, the global, and place**
In relation to the new ‘mobilities turn’ discussions of key concepts such as place, place and the global become crucial. The texts selected for this session is a mix of explicitly targeted mobilities theory and more general discussions within human geography and sociology of globalism and place.

**Readings**

**Student text presentation 2: Cities and urbanism**
These texts single out the theme of cities and urbanism in the light of the new mobilities turn and the global transformation processes within technology and materiality.

**Readings**

**Student text presentation 3: Everyday practices and cultures**
In these texts the gaze is turned towards the everyday life and the mundane mobilities practices of contemporary society. The texts problematize the taken-for-granted status of everyday life phenomena such as waiting in a line-up or commuting.

**Readings**

**Student text presentation 4: Politics, power and planning**
The texts selected for this session target the policy and planning dimension related to mobilities. It put emphasis on some of the ‘dark side’ issues within mobilities such as power and inequality.

**Readings**
- Hanson, S. (2010) Gender and mobility: new approaches for informing sustainability, *Gender, Place & Culture*, 17(1), 5-23

**Student text presentation 5: Tourism, leisure and the environment**
In this final session of student presentations the focus is on the environment and the global tourism practices transforming the relationships to places and social identities.

**Readings**
3rd Phase: Workshops
The third phase of the course contains three workshops all aiming to qualify the critical awareness of theories’ potential for empirical analysis. In different ways we target the issues of theory operationalization and analytical applicability to various types of empirical material.

Workshop I: Theory operationalization and diagrammatic thinking (3 hours)
Workshop I focus on how to ‘use’ theory in reflection, analysis and empirical work including a short introduction to ‘diagrammatic thinking’ and how to use diagrams as ‘vehicles for thinking’ (Jensen 2014, chap. 3). The workshop deliberately points towards the discussions taking place within the methodology course. Furthermore, it shortly introduces to diagrammatic thinking (a theme more fully explored in the course ‘Mobilities Design I’ on MSc2). Not as an overlap, but as a bridging discussion from this theoretical course to the methodological issues related to theory application in empirical analysis. The first part of the workshop contains a short introduction lecture where the key features of diagrams and diagrammatic thinking is presented on the basis of the idea of diagrams as ‘vehicles for thinking’ (Jensen 2014, chap. 3). After the introduction students will discuss two or more texts from within the curriculum. This work takes place in the project groups. The group may take point of departure in texts that they have presented in phase 2. In order to facilitate the work and discussion the groups must make a diagram visually illustrating the operationalization of the theories in question. The final part of the workshop contains a plenary session where each group presents their diagram. Part of the presentation must include a review of ‘aborted diagrams’ (i.e. diagrams that were part of the group reflection and discussion but ended up being thrown away).


Workshop II: Mobilites and moving images (6 hours)
In this workshop the framing will be through moving images. We shall be watching three very different representations of issues of relevance to the ‘mobilities turn’. First we watch William H. Whyte seminal account for his ‘Street Life Project’ studies in Manhattan titled ‘The Social Life of small Urban Spaces’ from 1980. The movie is a research documentary and will point towards a discussion of situational and face-to-face mobile interaction in the ‘small spaces’ of the everyday life. Hereafter the movie ‘Mumbai Disconnected’ from 2009 will take the discussion towards everyday life mobilities in global mega-cities, as well as it will be a window into the a discussion of power and inequality. Finally, we watch the Hollywood production of Walter Kern’s novel ‘Up in the Air’ starring George Clooney from 2009 where the themes of global mobility life styles as well as embodied enrolment into large socio-technical mobilities systems will surface. Each of the movies will in its own way give a common point of reference for the further discussions and work in the semester. In discussing the movies we shall engage as many of the theoretical concepts discussed at the course as possible to the subtext of ‘theory operationalization’.

Workshop III: Designing Mobilities (12 hours)
This two-day workshop works with the four cases from the ‘Designing Mobilities’ book (Jensen 2014). The modes of walk, car, cycle and train will be discussed through a full day workshop where four different teams work with each their case from the book. Students work in groups with the following assignment: Use the SMOB model for analysis and identification of problems and potentials in the case in ‘Designing Mobilities’ and discuss re-design ideas. Present these at the plenary. The workshop requires cursory pre-reading of the four chapters. The actual case material will be customized case materials containing more mappings and photos than in the book chapters. This means that in comparison to the book chapters the analytical text has been removed and much more ‘raw material’ inserted. This material is uploaded to the course’s Moodle folder.

Into lecture: Learning from the Design Fields
In this lecture the SMOB model is related to the CPC framework as well as the insights from geosemiotics
aiming at providing an analytical and operational synthesis that will facilitate an informed understanding of mobility design with a focus on problems and potentials. The lecture connects the design fields to the mobility turn and argues for the emergent field of ‘mobilities design’.

**Readings**


**Case 1: WALK**
**Literature**

**Case 2: BIKE**
**Literature**

**Case 3: TRAIN**
**Literature**

**Case 4: CAR**
**Literature**

**Day one: Analysis**
**Day two: Plenary presentations of diagrams and proposal for re-design / change / policy recommendation**

**4th Phase: Essay (from 22 to 29 September)**
The aim of the essay assignment is to combine the insights harvested from the first three phases of the course into a coherent understanding of key contributions within the ‘Mobilities Turn’. The essay must contain a review of the central points and contribution to the mobilities research field within at least three texts from the curriculum. The essay must contain a critical evaluation and discussion of the texts and their contribution. Thirdly, the essay must include a critical discussion about theory operationalization and application. Finally, the essay must contain cross-references between the texts as well as a discussion about the potential for future mobilities research. The essay must be written and handed in individually. The reference format: Harvard reference system. The essay must be between 2500 and 4000 words including bibliography.
Course module description

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<th>Module title, ECTS credits and STADS code</th>
<th>Mobility Technologies and Infrastructures (5 ECTS)</th>
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<tr>
<td><strong>Mobilitets Teknologier og Infrastrukturer</strong></td>
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<td><strong>Activity code:</strong> IMS770003L</td>
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<td>A-Study Board</td>
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<th>Module coordinator</th>
<th>Assistant Professor, Kristian Hegner Reinau, AAU</th>
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**Objectives**

This module addresses and discusses the relationship between transport/infrastructure planning, mobilities and spatial development. The module furthermore offers an introduction to infrastructure and transportation planning focusing on traditional theories and techniques for transport planning. The course further addresses new ways to analyse the different mobilities systems. The students are consequently introduced to methods for analysing infrastructure-related problems in both public and private transport.

According to the general curriculum students who complete the module must:

**Knowledge**

- Must have an understanding of the relationship between infrastructure development, physical mobility and spatial development
- Must know the primary determinants for transport and transport demands (the determinants of trip production, trip distribution, modal split and routing)
- Must know about the principles behind transport modelling, and the limitations of the models
- Must have an understanding of the relation between conventional traffic planning and the ‘mobilities turn’

**Skills**

- Must be able to identify and analyse infrastructure-related transport problems in both public and private transport
- Must be able to understand and analyse mobilities designs and mobilities systems (e.g. automobility, velomobility, aeromobility, metromobility etc.) and the interplay between these
- Must be able to formulate solutions to infrastructure-related transport problems

**Competencies**

- Must be able to identify discrepancies between road network performance, environmental strains and mobility demands
- Must be able to critically evaluate and examine proposed infrastructure investments
- Must be able to formulate schemes and strategies for the utilisation of technologies of mobilities aiming at balancing considerations to mobilities and environmental strains
- Must have an understanding of various traffic models and their underlying mechanisms

**Type of instruction:** Lectures, supervision, plenary sessions and company visit

**Exam format:**

**Ld** - The module is assessed with a written assignment based on central parts of the objectives for the course module through one or more written assignments (including reports/analyses/posters/drawings/models or the like). A written assignment is developed during the execution of the course module. The written material for submission must be digitally uploaded to the directory assigned by the semester secretary.
Evaluation criteria: Pass/Fail

Place and Date
The essay must be uploaded to the submission folder in the course module room by **Monday 01 December at 10.00, 2014.**

Access to the upload folder will be closed at the deadline. The file has to be one pdf-file of max. 50 MB and must specify your name; for example jensnielsen.pdf. The formal and legally valid hand in is by upload to the submission folder. Therefore, if the submission does not take place by the deadline, the student will have used an examination attempt.

Academic content and basis
State-of-the-art knowledge of infrastructure and transportation planning focusing on traditional theories and techniques for transport planning.

Scope and expectations
The course module contains a student work load of 150 hours divided into readings and lecture preparation, lecture presences, group work assignments, workshop participation and plenary activity. The students are encouraged and expected to prepare for the lecture by reading the literature in advance of the lecture in order to provide the ideal conditions for an informed dialogue about the course themes.

This course is structured in 4 phases

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<td>4° Phase</td>
<td>Essay</td>
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150-hours workload distribution (approximate)
7 Lectures = 14 h
7 Lecture preparation = 60 h
5 Student presentations = 30 h
1 Workshops 10 h
Essay Writing = 36 h
Total 150 h

Module activities (course sessions etc.)

1° Phase: 7 Transport research lectures

Lecture 1: “Spatial development and physical mobility”
This lecture explores the link between physical mobility and spatial and economical development to illuminate why traffic models is an essential tool today. On one hand much mobility research provides us valuable insights
into how mobility is lived, how we understand mobility and how we can shape it etc. On the other hand, transport research, which this course is more focused on, provides “hard numbers”. One over-simplified way of presenting the perspective on mobility presented in this course, which is found in high-ranking transport journals such as Transportation, Transportation Research and Transportmetrica, is that society only functions because millions of people and goods are moving around each day, and the more efficient these movements can be conducted, the more efficient the society will function. Therefore we need tools to analyze how these millions of movements will occur, and this is where traffic models enter the scene. These models give us the basis for optimizing the movement of people and goods in society, by modeling and predicting movements. This lecture focuses on the relationship between economical development and movement and forms the introduction to the course by sketching out why we need traffic models and what role transport plays economically in society.

**Lecturer:** Kristian Hegner Reinau (2 x 45 min)

**Reading material:**
- Banister D. “Transport and economic development: reviewing the evidence”, *Transport Review* 32 (1) 1-2

**Lecture 2: “Future transport – challenges, possibilities and politics”**
This lecture builds on the premises that efficient transport is the key to a well functioning economy, as argued in lecture one, and is focuses on the challenges we see today. The transport in Denmark, and most is the world, is growing continuously. On the one hand this leads to a number of negative consequences such as pollution, congestion and accidents. On the other hand, our society is created so that transport is vital for it to functions. The area is therefore challenging and there are apparently no easy solutions. The lecture starts with an updated overview over the amount of transport today, its type and its consequences. The main focus will be on Denmark, but international examples will be taken into the discussion where it is relevant. Thereafter a number of tools in the transport sectors “toolbox” are presented. Finally a short discussion is given on how we can handle the future transport challenges in Denmark.

**Lecturer:** Niels Agerholm (2 x 45 min)

**Reading material:** Will be announced later

**Lecture 3: “Freight transport – why urban researchers should focus on trucks?”**
This lecture also adds to the premises that efficient transport is the key to a well functioning economy, as argued in the previous lectures. There is a danger, when talking about mobility in particular, that it is understood as personal mobility, taking place either “public” in busses, trams and trains, or “privately” in cars. Freight transport is often forgotten in discussions about urban transport and mobility, even though it is a very significant sector with a high impact on the infrastructure. This lecture therefore argues that urban mobility researchers also need to focus on freight transport when they discuss transport and mobility. The lecture therefore starts with an overview of the freight transport industry in Denmark. Secondly, the current challenges of the industry are presented, with a special focus on regulation and cabotage. Thirdly an urban perspective is placed on the industry; there is a fast growing literature on freight transport in urban areas and the key themes in this literature is presented.

**Lecturer:** Kristian Hegner Reinau (2 x 45 min)

**Reading material:**
Cohesion policies, Transport and Tourism. (Curriculum is only page 10-20 of the report)

Lecture 4: “Transport models – how do they work?”
This lecture gives an introduction to traffic models and how they work, from the first simple models to the current activity based models. It is discussed what the concepts trip production, trip distribution, model split and routing covers, and how these are calculated.
**Lecturer:** Goran Vuk (2 x 45 min)
**Reading material:** Will be announced later

Lecture 4: “Transport models – current and future challenges?”
This lecture discusses current challenges with traffic models and what the next modeling goals are in the field, i.e. what dynamics traffic modelers seek to incorporate today. As a case, modeling of family interactions in the ACTUM traffic models is presented.
**Lecturer:** Goran Vuk (2 x 45 min)
**Reading material:** Will be announced later

Lecture 6: “Big transport investments – Big Risks: How models and uncertainty should be treated”
Infrastructure investments are becoming increasingly big and complex; take as example the purchasing of new IC4 trains in Denmark. In an infrastructure perspective this means that focus on the accuracy of traffic models are huge, and also, that there is a need to manage risks in infrastructure projects given the uncertainties arising on all levels of these. This lecture therefore focuses on two things, first, the accuracy of traffic models and the discussions about how these can and should be used as a basis for political decisions. Secondly, on how risks involved in mega-infrastructure projects can be treated.
**Lecturer:** Kristian Hegner Reinau (2 x 45 min)
**Reading material:**

Lecture 7: Aeromobility and Airports
While lecture 6 focused on the mega infrastructure projects and the risks involved in this, this lecture focuses in more details on one of these types of investments, airports. Currently we see a situation in Berlin where tremendous investments has been made in the Berlin Brandenburg Airport, which currently is the focus for a heated debate, and which the newspaper “The Economist” termed the “eternal building site” due to numerous delays. The lecture therefore focuses on airports, as infrastructure investments, and how they are located in the space between specific places, cities, and a global flow of people and goods.
**Lecturer:** Shelley Smith (2 x 45 min)
**Reading material:** Will be announced later

2° Phase: Student text presentations
At the beginning of the course the students will each be assigned a topic from the list below on which they have to make a presentation, either individual or in groups, depending on the number of students. A presentation should be around 15 minutes, using PowerPoint, and the last 30 minutes of the 45-minute module is discussions. Students attending the presentations should read the specified material also and prepare written questions for the discussion.

**Student text presentation 1: Private transport**
The private car continues to be an important mean of transport and this presentation explores the “Peak Car”
concept.

**Lecturer:** Student(s) will be chosen at the beginning of course

**Reading material:**

**Student text presentation 2: Public transport**
Texts focusing on challenges related to public transport and modeling of this in urban areas.

**Lecturer:** Student(s) will be chosen at the beginning of course

**Reading material:** Will be announced later

**Student text presentation 3: Metros**
Metros are a huge research topic worldwide, and with the metro in Copenhagen, metros are chosen as the topic for one student presentation also, although this falls under “public transport”.

**Lecturer:** Student(s) will be chosen at the beginning of course

**Reading material:** Will be announced later

**Student text presentation 4: High Speed Railways**
Across Europe high speed railway lines become an increasingly debated topic, and this presentation synthesizes the discussion on railway use and high-speed rails

**Lecturer:** Student(s) will be chosen at the beginning of course

**Reading material:** Will be announced later

**Student text presentation 5: Biking**
Biking is an increasingly used mode of transport.

**Lecturer:** Student(s) will be chosen at the beginning of course

**Reading material:** Will be announced later

**3rd Phase: Workshop**
Workshop: “Public transport in North Jutland”
The workshop public transport in Northern Jutland runs over two days. The first day consists of a visit to NT, where the students will meet with one or more transport planners from the company, and hear about the challenges NT are facing today regarding meeting the demands for public transport in Northern Jutland. On the basis of this presentation and discussion, the students will work on an assignment, which is how to address these challenges, given state-of-the-art theories and practices in relation to public transport initiatives. After the presentation and discussion at NT, the students will work on their assignment and make a presentation, which they will present on the following day at NT, where NT planners will discuss the recommendations with the students.

**4th Phase: Essay**
The module is assessed with a written assignment, an essay, based on central parts of the objectives for the course module through one written assignments, which is developed during the execution of the course module. The topic of the essay shall be a sphere of transport, which has been part of the course, for example private car transport, freight transport, public transport. The students may choose the topic themselves, i.e. the sphere of transport, and in the essay the students shall explore at least the following aspects of this sphere of transport:

- What role does this sphere of transport play in relation to society and economical development?
- How can this sphere of transport be modeled today, what models are being used, what are the strengths and weaknesses of these models, and what are the future challenges in modeling this sphere of
transport?

- What is the main challenges societally, economically and environmentally facing this sphere of transport today, and how does the future for this sphere of transport look?

- Presentation of one practical case illuminating one or more of the challenges faced in this sphere of transport, and a discussion by the student, using theories from the course, on how the challenges in this specific case should be addressed.

The essay shall be written in Times New Roman, 12 point, 1.5 line-spacing with 2cm margins top, sides and bottom, and may not exceed 8 pages (excluding references). The reference format must be the Harvard or APA system.
Module title, ECTS credits and STADS code
Applied Philosophy of Science and Mobile Methods (5ECTS)
Anvendt videnskabsteori og mobile metoder
Activity code: IMS770004V

Location
MSc1
A-Study Board

Module coordinator
Associate Professor Claus Lassen, AD:MT

Type and language
English

Objectives
The objective is to strengthen the student’s ability to understand and use philosophy of science in relation to empirical cases relevant within mobilities studies. The course focuses the connection between philosophy of science, research designs and mobile methods (both qualitative and quantitative). The first phase of the course is dedicated to introducing key positions of philosophy of science and is followed by a seminar where the students will be working to apply this in practice. The second phase of the course will focus on introducing mobile methods and their relevance to mobilities research. Moreover a second seminar is scheduled to ensure that the students will be working with the theories in practice. Lastly a workshop is completing the course in which the students will be working to apply the theories of philosophy of science and mobile methods in their current semester project.

According to the general curriculum students who complete the module must:

Knowledge
- Must have knowledge about key classical and modern philosophy of science and mobile methods of the ‘Mobilities turn’
- Must be able to understand how philosophy of science and methods are intertwined in a mobilities research design

Skills
- Must be able to apply philosophy of science and mobile methods in projects that are situated within the ‘Mobilities Turn’
- Must be able to analyze and evaluate research designs in mobilities studies

Competencies
- Must have competencies to make proposals for contemporary mobility projects and assess their underlying philosophy of science as well as the methods employed

Type of instruction: Lectures and plenary sessions with case exercises
Exam format: V - Continuous evaluation/lobende evaluering
Evaluation criteria: As stated in the Framework Provisions

Place and Date
The essay must be uploaded to the submission folder in the course module room by Thursday 30 October at 10.00, 2014.
Access to the upload folder will be closed at the deadline. The file has to be one pdf-file of max. 50 MB and must specify your name; for example jensnielsen.pdf. The formal and legally valid hand in is by upload to the submission folder. Therefore, if the submission does not take place by the deadline, the student will have used an examination attempt.

**Academic content and basis**
The course focuses the connection between philosophy of science, research designs and mobile methods (both qualitative and quantitative).

**Scope and expectation**
The course module contains a student work load of 150 hours divided into readings and lecture preparation, lecture presences, group work assignments, workshop participation and plenary activity. The students are encouraged and expected to prepare for the lecture by reading the literature in advance of the lecture in order to provide the ideal conditions for an informed dialogue about the course themes.

**General course structure**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Activities</th>
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| 1st | Philosophy of science lectures  
Seminar I: Understanding and applying philosophy of science |
| 2nd | Mobile methods lectures  
Seminar II: Analyzing and identifying philosophy of science |
| 3rd | Workshop I: Applied philosophy of science and mobile methods lab |

150-hours workload distribution (approximate)
Lectures = 20 h  
Lecture preparation = 60 h  
Workshops 21 h  
Essay Writing = 37 h  
Self-study (secondary refs) = 12 h  
*Total 150 h*

Unless marked with ‘S’ for ‘secondary’ all readings are primary and expected to be read prior to the lectures.

**Module activities (course sessions etc.)**

1st Phase: Classical and contemporary philosophy of science  
The first three lectures introduce the students to key positions within classical and contemporary philosophy of science, which are relevant within mobilities studies. These first three lectures will be followed by a seminar that will enable the students to work with these classical and contemporary positions within philosophy of science by analysing a contemporary text document and account for these.

Lecture 1: Why and how to use philosophy of science  
Lecturer: Professor Dr. Antje Gimmler, Department of Learning and philosophy
In this very first lecture the positions of positivism, interpretative approaches and constructivism. The lecture aims at giving an overview of classical and contemporary philosophy of science as well as a perspective on how philosophy of science is usefully employed in research within mobilities studies.

Readings

Lecture 2: ANT and pragmatism
Lecturer: Professor Dr. Antje Gimmler, Department of Learning and philosophy
ANT and pragmatism are contemporary position in philosophy of science and much used within the mobilities turn, the material turn and practice theory. These three paradigms are characterized by transgressing the classical understanding of the social as action and relations of human being by introducing the material environment, technologies and artefacts into the analysis.

Readings:

Lecture 3: Investigation into place and space
Lecturer: Professor Dr. Antje Gimmler, Department of Learning and philosophy
The lecture aims at giving an overview on different research designs and underlying philosophy of science perspectives in recent research on place and space. How space and place are perceived of, which methods are used to investigate and which dimensions of everyday mobile life are central to the question of space and place, will be presented and discussed.

Readings

Seminar I: Understanding and applying philosophy of science
Lecturer: Professor Dr. Antje Gimmler, Department of Learning and philosophy and Associate Professor
Prior to this seminar the students must choose one of the positions of philosophy of science presented in the first three lectures and write 1 page about, and present this at the seminar. This serves to give the students a deeper understanding of a position of philosophy of science and practice oral presentation of their written work.

2nd Phase: The second phase of the course focuses on introducing selected mobile methods and their relevance to mobilities research. Moreover a second seminar is scheduled to ensure that the students will be working with the theories in practice.

Lecture 4: Qualitative methods – interviews and focus group interviews
Lecturer: Cathrine Borg, Ph.D. Fellow, Department of Architecture, Design and Media Technology
The purpose of this lecture is to give the students an introduction to the qualitative methods of interviewing and doing focus group interviews and also focus on the type of knowledge that is produced by these methods.
Extracts of ongoing mobilities research will serve as examples to discuss the possibilities and limitations of applying these methods to the research field of mobilities.

Readings
Kvale, Steiner & Svend Brinkmann (2009): *Interviews – Learning the Craft of Qualitative Research Interviewing*, Sage, chapter 1 page 1-14, chapter 7 page 123-142, chapter 8 page 143-160 and chapter 11 page 189-200
Morgan, David L. (1997): *Focus Groups as Qualitative Research*, Sage, chapter 2 page 7-17, chapter 4 page 31-45 and chapter 5 page 45-64

Lecture 5: Mobile methods – field research
Lecturer: Cathrine Borg, Ph.D. Fellow, Department of Architecture, Design and Media Technology
This lecture aims at giving an overview of different mobile methods such as participant observation, ethnography, and mapping, and how the different mobile methods link to the research field of mobilities studies. Furthermore the lecture will address the possibilities and limitations of implementing different mobile methods in practice e.g. in student group projects.

Readings

Lecture 6: Quantitative method – Survey Xact
Lecturer: Erik Jensen
This lecture will introduce the web based questionnaire program Survey Xact and the type of knowledge that this method can produce.

Readings

Seminar II: Analysing and identifying philosophy of science
Lecturer: Associate Professor Claus Lassen, Department of Architecture, Design and Media Technology
The purpose of this seminar is for the students to identify and analyse text documents for the underlying position of philosophy of science. This exercise is done to provide experience in applying knowledge from the first lectures in philosophy of science onto action. The findings must be presented based on a list of criteria ensuring that all presentations cover the analysis fully.

Workshop: Applied philosophy of science and mobile methods lab
Lecturer: Associate Professor Claus Lassen, Department of Architecture, Design and Media Technology and Cathrine Borg, Ph.D. Fellow, Department of Architecture, Design and Media Technology
This workshop is based on an application-oriented approach. The workshop serve to ensure that the students incorporate philosophy of science in their student group projects – and how to do this, based on parameters such as their research questions, research design and the type of knowledge that they are producing. Therefore the workshop will start with a small presentation of the student project.
Course Module: Integrated Design Theory and Methodology (5 ECTS)
Integreert designteori og -metodik

Course module
Language: English
Study regulations code: IMCS70141 (spec. in mobilities)
Activity code: ims770006l

Module coordinator
Course Coordinator, Shelley Smith; AD:MT
Study secretary: Kristina Wagner Røjen (ARK), Christina S. Andreasen (ID) and Louise Kiilerich Pratas (URB and MOB)

Teachers
Shelley Smith, AD:MT
Nis Ovesen, AD:MT
Mads Dines Petersen, AD:MT

Course framework theme
The focus of this course is an introduction to the new physical environment of Aalborg University for the entering International Masters students, as well as to the PBL - Problem Based Learning - method employed by Aalborg University and to the integrated design process. The course creates a hands-on learning forum for this through an intensive 3-day workshop. The workshop assignment takes a central public space in Aalborg as the site for exploring the PBL method as it applies to developing a design proposal in a group work situation. The groups will be comprised of a cross-section of the disciplines of Industrial Design, Architectural Design and Urban Design. The workshop is based on a combination of PBL and inspirational approaches and in it the students will face as a team of 5-6 people, the challenges of the design process in which the rational and the aesthetic are integral parts of a complex totality. Throughout the workshop interaction with teachers and other students is facilitated by pin-ups and supervision preparing the students for their continued studies at Aalborg University.

In addition to the workshop, PBL and integrated design process, the course initiates the meetings introducing the students to the important administrative bodies such as the Study Board, Student Counselling and the Secretarial Staff, that will become integral parts of their time at Architecture and Design, Aalborg University.

Organisation and time schedule
The learning environment of this course is structured around introductory lectures and meetings, a site visit, a design workshop with pinups, supervision and feedback, as well as individual readings and written reflections.
Prerequisites: A BSc degree (Bachelor) in Architecture and Design or similar

<table>
<thead>
<tr>
<th>Scope and expectations</th>
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<td>The course module contains a student workload of 150 hours divided into readings, preparation, lecture, workshop group work assignments, participation and plenary activity. The students are encouraged and expected to do background reading and reflect on the methods introduced and their use in the development of design proposals as well the problems and advantages of group work and team development.</td>
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2 lectures = 6 h  
Lecture preparation = 22 h  
Workshop intro = 1 h  
Site visit and workshop fieldwork = 5 h  
Workshop supervision = 8 h  
Workshop pinups = 3 h  
Workshop sketching = 15 h  
Workshop hand-in product = 10 h  
Reflection = 30 h  
Self-study = 50 h  

Total 150 h
Module activities

**Lecture 1 Introduction and welcome to Architecture and Design**
Lecturer: Associate Professor Shelley Smith, AD:MT
This lecture introduces to the course, the context of Aalborg and the structure of the Master and the facilities at Architecture and Design Aalborg University.

**Lecture 2 Practical information and meetings with Administration**
Lecturers: Associate Professor and Study Board for person Henrik Harder AD:MT, Student Counseling Services AD:MT, Secretarial Administration Christina S. Andreasen AD:MT
The students will be introduced to the services and practical aspects of the administration and key people and contacts will be identified. This meeting will give practical information regarding the entire semester.

**Lecture 3 PBL – history, theory and applications**
Lecturer: Associate Professor Shelley Smith, AD:MT
This lecture takes its point of departure in the PBL method, giving background information on the theory behind it, the Aalborg method and how it is practiced specifically in relation to the integrated design approach and project work in Architecture and Design.

**Primary Literature**

**Secondary Literature**
- [http://www.pbl.aau.dk/](http://www.pbl.aau.dk/)

**Lecture 4 Workshop and assignment introduction**
Shelley Smith, Mads Dines Petersen, Nis Ovesen AD:MT
The workshop assignment, expectations and submission requirements will be introduced and explained. Techniques for integrated design, site registration and analysis will be discussed.

**Primary Literature**

**Activity 5 Site visit**
Shelley Smith, Mads Dines Petersen, Nis Ovesen, AD:MT
Primary Literature
Will be made available as a pdf

**Activity 6 Workshop Phase 1**
Shelley Smith, Mads Dines Petersen, Nis Ovesen, AD:MT
Activity 7 Workshop Phase 2
Shelley Smith, Mads Dines Petersen, Nis Ovesen, AD:MT

Activity 8 Workshop Phase 3
Shelley Smith, Mads Dines Petersen, Nis Ovesen, AD:MT

Activity 9 Reflections

Submission

For the final presentation the following must be submitted and presented:

Site and design proposal model 1:200

A0 poster containing site registration, analysis, concept, design drawings

Following the presentation an individual reflection must be written and uploaded. The reflection is comprised of a 5,000 character with spaces essay (approx. 2 A4 pages) regarding the workshop experience with the use of the PBL method in the analysis of the problem, teamwork and the development of the design proposal. The reflection may catalogue the design process in the workshop either with photos or descriptions or both, but it must also include references to the PBL model and the Aalborg model as per the readings and illustrate an understanding of the PBL method.

The written reflections must be digitally uploaded max 50 MB to the PBL Moodle room no later than:

Monday, September 1 by 4 p.m.

Please name your file with your name e.g. JensJensen.pdf.