

SUSTAINABLE MOBILITY MANAGEMENT

MBA

Summer Semester 2020



THIS PUBLICATION REFLECTS THE STATE OF PLANNING AT THE TIME OF PRINTING. CHANGES MAY OCCUR.

Content

- Content 2
- Overview 3
 - The Sustainable Mobility Management Team 4
 - Modules’ Structure 5
 - Outline 6
- Second Semester 7
- Module 05 Management 8
- Module 06 Mobility Actors and Practices 11
- Module 07 Mobility Trends and Futures 13
- Module 08 Lecture Series 15
- Additional Course: Academic Writing 17
- Master Thesis 19
- Alumni Program 20

Overview

The Sustainable Mobility Management Team

Prof. Dr.-Ing. Hans-Liudger Diemel

Academic Director

Institute of Vocational Education and Work Studies,
Head of Chair Work, Technology and Participation
Technical University Berlin



https://www.technik.tu-berlin.de/menue/arbeitslehretechnik_und_partizipation/

Prof. Dr. Andreas Knie

Academic Director

Professor for Sociology at TU Berlin,
Head of the research group Science Policy at WZB,
Social Science Research Center Berlin WZB



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Dr. Massimo Moraglio

Academic Coordinator

Unit research leader of EU H2020 project HiReach
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Nora Bonatz

Academic Coordinator

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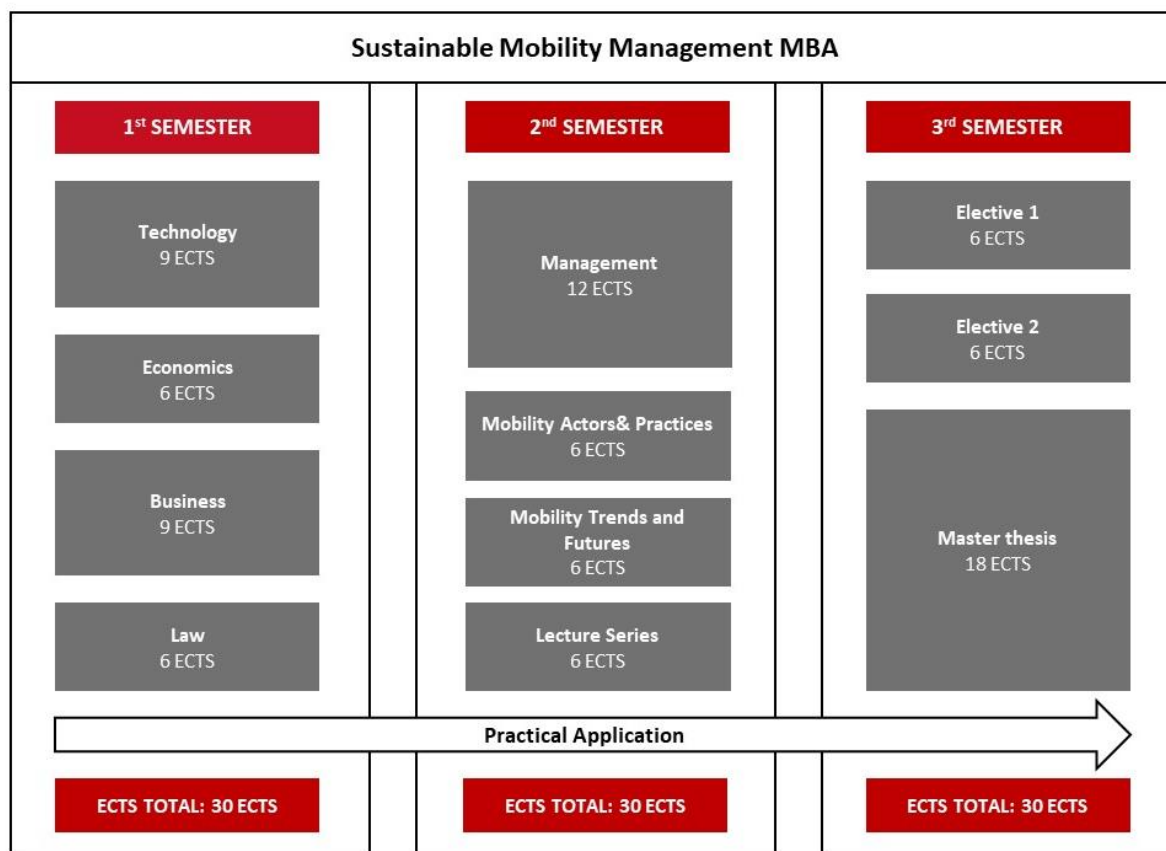
Alina Pfeifer

Administrative Coordinator

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Modules' Structure



The master program is taught over a period of three semesters.

- The first semester covers the technical, economic, entrepreneurial and legal foundations for management decisions in the mobility sector.
- The second semester deepens this view and looks at management, trends and actors.
- The third semester broadens the view while simultaneously focusing on practice according to student's individual interests.

All semesters include lectures, tutorials, seminars as well as company visits, online materials related to practice and extracurricular activities. The master thesis, due in the third semester, concludes the program.

Outline

Location and Times

Unless otherwise announced, lectures, tutorials, consultancy and peer group meetings take place at House 9, EUREF-Campus, 10829 Berlin.

Lectures

Lectures are held by professors and academic staff of TU Berlin and other universities, and by professionals of the energy industry. They convey the core teachings. Group work is frequent. Homework may be assigned. Lectures start *sin tempore*, i.e. sharp.

Semesters

- **Second semester** (Summer semester – SoSe 2020)
First lesson on Mid-April 2020
Last lesson on Mid-July 2020
- **Third semester** (Winter semester - WiSe 2020-21)
First lesson: Mid-October 2020
Last lesson: Mid-February 2021

Company Visits

Company Visits give the opportunity to go and see the company on-site and see course-content more lively presented. Registration before attendance may be required.

German for Beginners Class

Language classes are offered on campus and incur a small additional fee. Advanced language classes are available, for which taking a test is mandatory.

For more information, visit the website of Sprach- und Kulturbörse [here](#).

E-Learning Platform 'Moodle' and WirelessLAN

Information **S**ystem for **I**nstructors and **S**tudents (ISIS)/Moodle is a software for online learning platforms for announcements, distribution of material, registration to events, etc. An introduction will be given in the first week. Please log on frequently, even in lecture free times. The TU Berlin offers [WirelessLAN](#) (WLAN) with full coverage across its campus. Students have the possibility to access the internet from any point on the campus.

Exams

A written (e-) exam, paper, presentation, or portfolio concludes each module. Everything that was taught in the lectures, tutorials, and compulsory Company Visits within the module may be subject to examination. Exams start on time! A failed examination may be repeated twice. For further details, please refer to the official Study and Examination Regulation. **Attendance is obligatory.**

Second Semester

Summer Semester 2020

Lecture period: 14 April – 18 July 2020

All the dates and contents are subject to change.

Always check on <https://isis.tu-berlin.de/> for updates!

Module 05 Management (12 ECTS)

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**Aims and Scope**

Students are able to independently identify, analyze, and design strategic approaches taking into account the consequences of environmental changes for planning, management, and controlling. They do this by incorporating interdependent technological, economic, business and legal processes in companies and organizations and taking into account social responsibility and sustainable development. Students will be able to define the main features of management in the transport sector, apply problem-solving skills to case studies using different fields of knowledge and present options for optimizing mobility.

Keywords

Business models & plans, small group communication, leadership, environmental communication, corporate social responsibility, conflict management, change management, risk management; operational excellence, system services, and energy services, Germany's

energy transformation, management of reactive power and links to the transport sector.

Schedule

Friday, 17 April 2020 9:30 - 17:30	Core Lecture: Introduction to Strategic, Project & Innovation Management Prof. Dr. Dodo zu Knyphausen-Aufseß/ Prof. Dr. Søren SALOMO/ Prof. Julian WÉKEL
Saturday, 18 April 2020 9:30 - 17:30	Core Lecture: Operations - Project Management – TIM Quiz (10%) Prof. Dr. Søren Salomo/ Prof. Dr. Hans-Luidger Dienel/ Prof. Julian Wékel
20 – 24 April 2020	Fair: Hannovermesse (Please find further information on Moodle)
Tuesday, 21 April 2020 8:00 - 18:00	Tutorial (Specialized): Communication Training and Creative Writing Bettina Brockmann, Emily Schneider
Friday, 24 April 2020 9:30 – 13:00 14:00 – 17:30	Core Lecture: Quantitative Methods for a Project Plan Prof. Dr. Thomas Volling Jun.-Prof. Dr. Karola Bastini
Saturday, 25 April 2020 9:30 - 17:30	Core Lecture: Operations - Project Management - TIM Quiz on Lectures April 17 and 18 (10%) Prof. Dr. Søren Salomo
Tuesday, 28 April 2020 08:00 - 12:00 (online) 14:00 - 18:00	Tutorial specialized: Communication Training and How to write a Project Plan Bettina Brockmann Dr. Nadja Berseck
Monday, 04 May 2020 9:30 - 17:30	Core Lecture: Technology Management Prof. Dr. Søren Salomo
Wednesday, 06 May 2020 08:00 - 12:00 13:00 - 18:00	Tutorial: Pitch Training / Inhouse Communication Training Bettina Brockmann Specialized Excursion (Company visit)
Wednesday, 13 May 2020 8:00 - 9:00	Exam: Written Test on Innovation and Technology Management Lectures (30 minutes) (30%) Prof. Dr. Søren SALOMO
Friday, 15 May 2020 9:00 - 12:00	Specialized Lecture: Scrum and agile Project Management: Introduction Dr. Angela Jain

Saturday, 16 May 2020 9:00 - 16:00	Specialized Lecture: Scrum and agile Project Management: Application Dr. Angela Jain
Tuesday, 19 May 2020 9:30 - 17:30	Specialized Lecture: Business Operations in the Energy Sector – Focus on sustainable mobility Prof. Dr. Thomas Volling
Wednesday, 27 May 2020 9:00 - 16:00	Specialized Lecture: Methods for stakeholder and user participation Dr. Angela Jain
Thursday, 28 May 2020 9:00 - 16:00	Specialized Lecture: Ten Commandments of Process Management Prof. Dr. Hans-Liudger Dienel
Thursday, 04 June 2020 9:00 - 16:00	Specialized Lecture: Ten Commandments of Process Management Prof. Dr. Hans-Liudger Dienel
Friday, 05 June 2020 9:00 - 12:00	Specialized Lecture: Ten Commandments of Process Management Prof. Dr. Hans-Liudger Dienel
Wednesday, 01 July 2020	Handing in of Report (Voice-over PPT) (40%)
Friday, 17 July 2020 9:30 - 17:00	Oral: questions related to delivered report (20%)

Literature

TBA

Module 06 Mobility Actors and Practices (6 ECTS)

Prof. Dr. Sophia Becker

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Aims and Scope

At the end of this module, the students will understand the fundamentals of mobility concepts based on the knowledge of theoretical sustainable concepts and their practical application. The focus is to recognize mobility as a socio-technical system. Mobility changes are based on cultural changes.

Students will address and manage the social/economic/technological tensions and critical points emerging in the implementation of the transition toward sustainable mobility.

Keywords

Mobility, climate change, and social values; Analysis of travel and transport systems; Mobility, modes of transport and actors; Mobility and inequalities; Mobility, diversity, and accessibility; the concept of motility and sessility; Social networks, time rhythms, and spatial distribution; Travel networks, community, and identity.

Schedule

Wednesday, 15 April 2020 09:00 – 13:00	Lecture: Introduction; agenda, general notions, expectations; Sustainable mobility - concepts; from rebound to sufficiency; Transition theory Dr. Sophia Becker
Monday, 20 April 2020 09:00 – 13:00	Lecture: Actor theory, social innovations for change; application with special focus on civil society and shared mobility Dr. Sophia Becker (2 hrs), Clemens Rudolf (3 hrs)
Monday, 27 April 2020 09:00 – 13:00	Lecture: Individual behavior change for sustainable mobility; user groups and typologies Katharina Götting

Tuesday, 05 May 2020 09:00 – 13:00	Tutorial: Policy instruments for sustainable transportation; evaluation of transport policies (with case studies) Nora Bonatz
Monday, 26 May 2020 09:00 – 13:00	Lecture: Discourse, framing and communication concepts; video and visual communication tools for change Dr. Sophia Becker (2 hrs), Simona Theoharova (3 hrs)
Wednesday, 03 June 2020 09:00 – 13:00	Lecture: Mobility in a long term vision: history and futures of mobilities Dr. Massimo Moraglio
Monday, 15 June 2020 09:00 – 13:00	Lecture: Basic of transport sociology: Mobility Turn, Motility Dr. Massimo Moraglio
Wednesday, 17 June 2020 09:00 – 13:00	Lecture: Methods and preparation for case study; practical communication tools Dr. Sophia Becker (2 hrs), Simona Theoharova (3 hrs)
Tuesday, 23 June 2020 09:00 – 13:00	Lecture: Walkability & Real-world experiment as case stud Dr. Julia Jarass
Wednesday, 24 June 2020 09:00 – 13:00	Lecture: Project work on case study Berlin; international case comparisons Dr. Sophia Becker
Wednesday, 08 July 2020 09:00 – 13:00	Lecture: Results of the case study, discussion, preparing the presentation and project report; feedback and supervision Dr. Sophia Becker
Thursday, 09 July 2020 09:00 – 13:00	Presentation (40%) and Report (60%) Dr. Sophia Becker

Literature

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Module 07 Mobility Trends and Futures (6 ECTS)

Dr. Irene Feige

Institute for Mobility Research (BMW Group)
Institute Director

www.ifmo.de



Dr. Roland Nolte

IZT - Institute for Futures Studies and Technology
Assessment
Institute Director

www.izt.de



Aims and Scope

After completion of this module, students will understand mobility trends with the aim to manage the complexity of the open and networked transport of the future. The social and technical shifts are taken into consideration as well as the fundamentals for forecasting. In this regard, different scenarios will be proposed in order to plan long term developments of a mobility change.

Keywords

Futures research, megatrends, foresight processes, futures of mobility, sustainable mobility, transformation of mobility systems, energy and new mobility, MaaS – Mobility as a Service.

Schedule

Thursday, 23 April 2020
09:00 – 13:00

Lecture: Future Research and Trends in Mobility
Dr. Roland Nolte

Thursday, 30 April 2020
09:00 – 13:00

Lecture: The Futures of Mobility
Dr. Roland Nolte

Thursday, 07 May 2020
09:00 – 13:00

Lecture: Progressive Mobility Strategies and Concepts
Dr. Roland Nolte

Thursday, 14 May 2020 **Lecture:** Disruptive Technologies & Future Mobility Systems
09:00 – 13:00 Dr. Roland Nolte

Wednesday, 20 May 2020 **Lecture:** Mobility – the global Picture
09:00 – 13:00 Dr. Roland Nolte

Monday, 25 May 2020 **Oral Exam (40%)**
09:00 – 16:30 Dr. Roland Nolte

Thursday, 18 June 2020 **Lecture:** Urban mobility and big scale scenarios I
10:00 – 17:30 Dr. Irene Feige

Friday, 19 June 2020 **Lecture:** Urban mobility and big scale scenarios II
10:00 – 17:30 Dr. Irene Feige

Thursday, 25 June 2020 **Lecture:** Urban mobility and big scale scenarios III
10:00 – 17:30 Dr. Irene Feige

Friday, 03 July 2020 **Presentation (40%) and Report (20%)**
10:00 – 17:30 Dr. Irene Feige

Literature

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Module 08 Lecture Series (6 ECTS)

Conveners

Nora Bonatz and Massimo Moraglio

Aims and Scope

At the end of this module, students will have an overview of state-of-the-art sustainable mobility trends. National and international experts from industry, academia and research centres involved in the transition toward sustainable mobility will present different opinions, case-studies and perspectives.

Keywords

Sustainable Mobility Trends

Schedule

Wednesday, 15 April 2020 14:00 – 17:00	Lecture: Future Urban Transport: Alternative Freight Transport Systems Hermann Grünfeld (Hamburg Port Authority)
Thursday, 16 April 2020 09:00 – 12:00	Lecture: Driverless electric shuttles - new chances and challenges for urban mobility Hans Christian Winter (IAV GmbH [Engineer Society Automobile and Traffic])
Monday, 27 April 2020 14:00 – 17:00	Lecture: Why we need a completely different Mobility and how German Rail needs to be transformed Bernhard Knierim (Co-founder alliance "Bahn für Alle")
Thursday, 30 April 2020 14:00 - 17:00	Lecture: TBA Nuno Ribeiro (VTM - mobility consultant)
Tuesday, 05 May 2020 14:00 - 17:00	Lecture: TBA Ulrike Müller and team (VW Group Future Center Europe GmbH)
Thursday, 14 May 2020 14:00 – 17:00	Lecture: Why we have to transform urban mobility – the global picture Daniel Ernesto Moser (GIZ [German Development Agency])
Wednesday, 20 May 2020 14:00 – 17:00	Lecture: Will China deliver ‘Ecological Civilisation’ in Urban Mobility? David Tyfield (Lancaster University)

Tuesday, 26 May 2020 14:00 – 17:00	Lecture: How Digital Services enable 100% Availability and increase Sustainability Annika Hauptvogel (Siemens Mobility Services AG)
Tuesday, 02 June 2020 14:00 - 17:00	Lecture: Planning for the future of mobility Glenn Lyons (UWE Bristol)
Wednesday, 03 June 2020 14:00 – 17:00	Lecture: Mobility in the third dimension: May drones become a serious transport option? Robin Kellermann (TU Berlin)
Monday, 15 June 2020 14:00 - 17:00	Lecture: TBA Katrin Moder (FlixMobility)
Wednesday, 17 June 2020 14:00 – 17:00	Lecture: Global Automotive Industry Reset – The Transformation towards Sustainable Mobility? Gerhard Prätorius (TU Braunschweig – Former VW sustainability Director)
Tuesday, 23 June 2020 14:00 – 17:00	Lecture: Mobility Management as a real contribution to climate protection Michael Schramek (IHK Trainer for "Operational Mobility Management")
Tuesday, 30 June 2020 14:00 - 17:00	Lecture: TBA Jan-Philipp Görtz (Former Deputy Head of Deutsche Lufthansa International Affairs)
Tuesday, 07 July 2020 09:00 - 12:00	Lecture: TBA Graham Parkhurst (UWE Bristol) (Tbc)
Wednesday, 15 July 2020 14:00 – 17:00	Lecture: How do we make the digital transformation of mobility sustainable? Marion Jungbluth (Verbraucherzentrale Bundesverband)

Literature

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Additional Course: Academic Writing

Lecturers: Benjamin Grosse, M.Sc.
Emily Schneider, J.D., M.A.

Academic writing is clear, concise, focussed, structured and backed up by evidence. Its purpose is to aid the reader's understanding.

Conducting scientific research and writing about it are two strands of the same job, and while the research can usually be done in your native language, the writing often can't. English has become the scientific language of the 21st century. Non-native speakers are not only challenged by grammar, vocabulary, and punctuation; to get their results published, they also have to satisfy the peer-reviewers' and readers' expectations.

You will be enabled to move a step forward in producing well-written research. After the course, you will be more confident in your ability to write readable scientific English, know how to avoid common mistakes and what support is available and have a more detailed understanding of the writing process.

Methods

Seminar character as tutorials, Group work, work in pairs, individual writing, individual coaching, practical exercises.

This is an additional course offered outside of your regular coursework. Yet we strongly recommend taking advantage of this opportunity.

Registration will take place via Moodle/ISIS

There will be two different subjects presented.

Benjamin Grosse will focus on academic writing in terms of structure, content, and most importantly citation.

Emily Schneider will focus on the actual process of writing, including mind mapping, sentence and paragraph creation, and peer-reviewing.

Schedule

Benjamin Grosse

Monday 20 April 2020 - from 16.00 to 18.00

OR

Monday 15 June 2020 - from 16.00 to 18.00

Emily Schneider

Wednesday 15 April 2020 - from 17.30 – 19.30

OR

Thursday 16 April 2020 - from 17.30 to 19.30

After successful completion of Emily Schneider's base course, you may continue on to her workshops for more in-depth practice.

Group I

20 May and 06 June - from 17:30 to 19:30

Group II

13 May and 27 May - from 17:30 to 19:30

Further details, including the selection procedure, will be published on Moodle.

Master Thesis

Supervisors	Individual.
Aims and Scope	Students demonstrate with the Master Thesis to be capable to address a problem from their study program independently, based on scientific methods, within a specific deadline. Once registered for the thesis, students have four months to conclude.
Schedule	To start the master thesis, 60 CP must have been attained; this equals the successful completion of all mandatory modules. Technically, the earliest starting date is hence six weeks after the last exam. The thesis can be postponed but should be completed in the third term. However, if you would like to get your certificate at the official graduation ceremony in July 2022, it should be submitted in November/December 2021.
Contents	Individual.
Form	Fifty pages, plus introduction and annex (es). In English. Scientific standards prerequisite. More detailed formal requirements to be announced.
DATE	Tutorial about the thesis procedure and implementation will be offered on 24 June 2020 (14:00-17:00). Thesis will be developed in the third semester.

Alumni Program

With your degree, you become part of the [alumni network](#). Alumni receive invitations to participate in the further extension of the academic program, and to events held on the campus and within the network.

As the program rolls over, you are cordially invited to participate in the curricular and extracurricular events of the following academic year(s).