Program
Winter Semester 2020/21
Intake 2020-2022
THIS PUBLICATION REFLECTS THE STATE OF PLANNING AT THE TIME OF PRINTING.

Changes may occur.
The Sustainable Mobility Management Team .................6
MBA Semesters Structure..............................................7
Outline ..........................................................................8
   Location and Times ..................................................8
   Lectures .....................................................................8
   Company Visits .........................................................8
   German Classes ........................................................9
   E-Learning Platform 'Moodle' and WirelessLAN ..........9
   Exams .......................................................................9
Social and Academic Events ........................................11
Module 01 Technology (9 ECTS) ..................................12
Module 02 Economics (6 ECTS) .................................15
Module 03 Business (9 ECTS) ...................................18
Module 04 Law (6 ECTS) .............................................22
Other information .......................................................24
Master Thesis .............................................................25
Alumni Program ..........................................................26
Dear students,

The MBA in Sustainable Mobility Management is thought for transport engineers, transport and mobility experts, planners, architects, and sustainability project managers who want to gain in-depth, special knowledge in the field of sustainable mobility management. Authorities, businesses and other agencies engaged in transport and mobility must rethink their current strategies.

Each urban area faces its own specific set of challenges: congestion, emissions, safety, accessibility and economic implications are only some factors that account for the mobility situation that inhabitants experience.

This implies an increased need for broadly educated, skilled managers, capable to frame those issues with social shifts, new technologies and innovative business models.

TU Berlin's master program in “Sustainable Mobility Management” closes the educational gap in this field and prepares students for leadership positions by training people who can deliver cutting-edge and sustainable mobility solutions. The master program is intended for an international and diverse audience: Learning and studying in small groups of up to 30 students means excellent and tailored learning conditions.

We are looking forward to meeting you!

Prof. Dr.-Ing. Hans-Liudger Dienel
Academic Director

Dr. Massimo Moraglio
Academic Coordinator

Nora Bonatz
Academic Coordinator

Alina Pfeifer
Administrative Coordinator
Overview
The Sustainable Mobility Management Team

Prof. Dr.-Ing. Hans-Liudger Dienel
Academic Director
Institute of Vocational Education and Work Studies,
Head of Chair Work, Technology and Participation
T.U. Berlin

Dr. Massimo Moraglio
Academic Coordinator
Unit research leader of EU H2020 project HiReach
massimo.moraglio@tu-berlin.de

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Alina Pfeifer
Administrative Coordinator
alina.pfeifer@campus.tu-berlin.de
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 (when possible) 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 online. The time of the lessons is always CET.

Semesters
- **First semester** (Winter semester - WiSe 2020/21)
  First lesson on Monday, 2 November 2020
  Last lesson on Wednesday, 24 February 2021

- **Second semester** (Summer semester – SoSe 2021)
  First lesson on Mid-April 2020 TBC
  Last lesson on Mid-July 2020 TBC

- **Third semester** (Winter semester - WiSe 2021-22)
  First lesson: Mid-October 2020
  Last lesson: Mid-February 2021

Lectures
Lectures are held by professors and academic staff of TU Berlin and other universities, and by professionals of the mobility industry. Lectures are divided into core and specialized lectures. Core lectures teach the basics and are relevant for students of all MBA programs; specialized lectures are designed for students of the Sustainable Mobility Management program to dive deeper into mobility.

Group work is frequent. Homework may be assigned. Lectures start *sine tempore*, i.e. sharp.

Company Visits (when possible due to Covid-19 restrictions)
Company Visits give the opportunity to go and see the company on-site and see course-content livelier presented. Registration before attendance may be required.
German Classes
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 System for Instructors and Students (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! In case a student wishes to withdraw from an exam, they must inform the competent body at least one day before the exam date; in case of a valid reason (e.g. sickness) a student can withdraw from an exam anytime, but have to inform the competent body and submit a proof latest 5 days after the exam date. Otherwise, the exam will be marked as failed. For further details, please refer to the official Study and Examination Regulation (AllgStuPO §50). A failed examination may be repeated twice. Attendance is obligatory.

Grading Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Assessment</th>
<th>Definition</th>
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<tbody>
<tr>
<td>1.0 / 1.3</td>
<td>Very good</td>
<td>Outstanding performance</td>
</tr>
<tr>
<td>1.7 / 2.0 / 2.3</td>
<td>Good</td>
<td>Performance above average requirements</td>
</tr>
<tr>
<td>2.7 / 3.0 / 3.3</td>
<td>Satisfactory</td>
<td>Complies with the average overall requirements</td>
</tr>
<tr>
<td>3.7 / 4.0</td>
<td>Adequate</td>
<td>Performance which, despite some flaws, still complies with performance requirements</td>
</tr>
<tr>
<td>5.0</td>
<td>Inadequate</td>
<td>Performance with significant flaws which does not comply with requirements</td>
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Social and Academic Events

Orientation Week 2020

26 - 30 October
Virtual visit of the TUB Main Campus Charlottenburg and EUREF Campus
Library Insights, Meet Up, Administrative Duties

Official Opening

30 October 2020 – 2:00 pm
Venue: virtual
Welcome Addresses Academic Directors
Individual presentation of each MBA course

Christmas Dinner

TBC
Module 01 Technology (9 ECTS)

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Institute Technologie und Management (ITM)
Faculty Wirtschaft und Management
T.U. Berlin

Prof. Dr.-Ing. Dietmar GÖHLICH

Head of MPM
Chair Methods of Product Design and Mechatronics
T.U. Berlin

Dr.-Ing. Tu-Anh FAY

Chair Methods of Product Design and Mechatronics
T.U. Berlin

Anne Syré
Chair Methods of Product Design and Mechatronics
T.U. Berlin

Aims and Scope
This module revisits and broadens students' knowledge of energy technologies and systems in the context of today's changing world, preparing the ground for the coming modules. The aim of this module is firstly to give students a basic insight into different components relevant to electric mobility, including their basic function and relevant design parameters. Secondly, a system based holistic approach is taught, considering drive train concepts, storage systems and charging technologies. The module will also provide a learning platform to enhance students understanding of relevant components. At the end of this module, the students will have an overview to several elements relevant to transport engineering and operations, including but not limited to analysis of energy source, storage system and propulsion.
Keywords
Energy physics and energy technologies; thermodynamics; mechanics; chemical processes; Carnot engines and cycles; fossil fuels and renewable energy sources; conversion technologies; recent global and local developments; storage and transport technologies; electrical engineering; grids; transitions and trends. Drivetrain concepts, storage systems, charging, smart grid, total cost of ownership, life cycle assessment.

Examination (9 ECTS, graded)
Core & Specialized Part: Written exam, 120 minutes, graded (100%)

Schedule Core Part

Mon 02 Nov 2020  Lecture
09:00 - 17:00  Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Tue 03 Nov 2020  Tutorial
09:00 - 17:00  M.Sc. Benjamin GROSSE

Sat 07 Nov 2020  Lecture
09:00 - 17:00  Prof. Dr.-Ing. Kai STRUNZ

Tue 10 Nov 2020  Tutorial
TBA

Wed 11 Nov 2020  Company visit
TBC

Schedule Specialized Part

Fri 23 Nov 2020  Kick-off Meeting: Introduction
14:30 – 16:00  Prof.Dr.-Ing.Dietmar GÖHLICH, Dr.-Ing.Tu-Anh FAY, Anne SYRÉ

Fri 23 Nov 2020  Drivetrain
(E-Learning at own pace until 14 Dec)

Mon 14 Dec 2020  Q&A Drivetrain
14:00-16:30  Prof.Dr.-Ing.Dietmar GÖHLICH

Mon 14 Dec 2020  Storage
14:00-16:30  (E-Learning at own pace until 8 Jan)

Fri 08 Jan 2021  Q&A Storage
09:00 – 11:30  Prof. Dr.-Ing. Dietmar GÖHLICH

Fri 08 Jan 2021  Charging and Smart Grid
(E-Learning at own pace until 25 Jan)

Thu 14 Jan 2021  Tutorial: Electric vehicle trainer and consultation
09:00-12:15 (Group I): Dr.-Ing. Tu-Anh FAY, Anne SYRÉ
13:15-16:30 (Group II): Dr.-Ing. Tu-Anh FAY, Anne SYRÉ

Fri 15 Jan 2021   Excursion
TBA   TBA

Mon 18 Jan 2021   Tutorial: Electric vehicle trainer and consultation
09:00-12:15 (Group I): Dr.-Ing. Tu-Anh FAY, Anne SYRÉ
13:15-16:30 (Group II): Dr.-Ing. Tu-Anh FAY, Anne SYRÉ

Mon 25 Jan 2021   Q&A Charging and Smart Grid
14:00 – 16:30 Prof. Dr.-Ing. Dietmar GÖHLICH

Mon 25 Jan 2021   Life Cycle Assessment and Total Cost of Ownership
(E-Learning at own pace until 8 Feb)

Tue 26 Jan 2021   Excursion
14:00 – 17:00 Dr.-Ing. Tu-Anh FAY, Anne SYRÉ

Thu 28 Jan 2021   Tutorial: Electric vehicle trainer and consultation
09:00-12:15 (Group I): Dr.-Ing. Tu-Anh FAY, Anne SYRÉ
13:15-16:30 (Group II): Dr.-Ing. Tu-Anh FAY, Anne SYRÉ

Fri 29 Jan 2021   Tutorial: Electric vehicle trainer and consultation
09:00-12:15 (Group I): Dr.-Ing. Tu-Anh FAY, Anne SYRÉ
13:15-16:30 (Group II): Dr.-Ing. Tu-Anh FAY, Anne SYRÉ

Mon 8 Feb 2021    Q&A Life Cycle Assessment
09:00 – 11:30 Prof. Dr.-Ing. Dietmar GÖHLICH

Fri 12 Feb 2021   Student presentations and Q&A Exam
09:00-17:00 Prof. Dr.-Ing. Dietmar GÖHLICH, Dr.-Ing. Tu-Anh FAY, Anne SYRÉ

Sat 20 Feb 2021   EXAM: Core & specialized part, written, 120 minutes, graded

Literature

Core part:

Specialized Part:
TBA
Module 02 Economics (6 ECTS)

Prof. Dr. rer. pol. Georg ERDMANN

Department of Energy Systems
T.U. Berlin

Hamid MOSTOFI

Institute of Vocational Education and Work Studies
T.U. Berlin

Aims and Scope
This module provides students with core knowledge of economics and provides a grounding in the economics behind the coming modules. The lectures deliver an introduction to transport economics and system dynamics modeling for the analysis of customer behaviors, business policies and strategies in the mobility sector. Special emphasis will be placed on how to realize the inter-relation between different components of transport economics.

Keywords
Welfare analysis; prices and markets; markets forms; production and pricing decisions; natural resource economics; merit order effects; external effects; trading in allowances; fundamentals of investment decisions; market failures and regulation; sustainability; global commons; security of supply.
Consumer theory in transport sectors; Mode choice analysis; Game theory; Jevons paradox; System dynamics modeling.

Examination (6 ECTS, graded)
Core Part: Written exam, 90 minutes, graded (50%)
Specialized Part: Written paper, 5 pages, graded (50%)
### Schedule Core Part

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Instructor(s)</th>
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<tbody>
<tr>
<td>On-line material</td>
<td>Tutorial Microeconomics, Macroeconomics</td>
<td>Sarah ELSHEIKH, M.Sc.</td>
</tr>
<tr>
<td>Fri. 06 Nov 2020</td>
<td>Tutorial (FAQ session) Microeconomics, Macroeconomics</td>
<td>Sarah ELSHEIKH, M.Sc.</td>
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<tr>
<td>Fri. 06 Nov 2020</td>
<td>Lecture: Microeconomics, Macroeconomics History of Economic Thought</td>
<td>Prof. Dr. Roland MENGES</td>
</tr>
<tr>
<td>Sat. 14 Nov 2020</td>
<td>Lecture: Financial Economics</td>
<td>Prof. Dr. rer. pol. Georg ERDMANN</td>
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<td></td>
<td>Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER</td>
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<tr>
<td></td>
<td>Lecture (FAQ): Prof. Dr. Roland MENGES</td>
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<tr>
<td></td>
<td>Company Visit: Siemens/Windnode</td>
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<tr>
<td>Fri 18 Dec 2020</td>
<td>Exam Core Part - Written, 90 minutes, graded</td>
<td>Prof. Dr. rer. pol. Georg ERDMANN</td>
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### Schedule Specialized Part

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon 23 Nov 2020</td>
<td>Introduction of Transport Economics</td>
<td>Hamid MOSTOFI</td>
</tr>
<tr>
<td>Thu 26 Nov 2020</td>
<td>Consumer Theory in Transportation sectors</td>
<td>Hamid MOSTOFI</td>
</tr>
<tr>
<td>Mon 30 Nov 2020</td>
<td>Game Theory - Mode Choice Analysis</td>
<td>Hamid MOSTOFI</td>
</tr>
<tr>
<td></td>
<td>Excursion</td>
<td>TBA</td>
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<tr>
<td>Wed 02 Dec 2020</td>
<td>Jevons Paradox - Sustainability Assessment</td>
<td>Hamid MOSTOFI</td>
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<td></td>
<td>Recruiting session</td>
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<tr>
<td>Mon 07 Dec 2020</td>
<td>System Dynamics Modeling</td>
<td>Hamid MOSTOFI</td>
</tr>
<tr>
<td>Thu. 10 Dec 2020</td>
<td>Exam Specialized Part - Announcement topic for the written Paper 5 pages, graded.</td>
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<tr>
<td>Mon 04 Jan 2021</td>
<td>Submission deadline of paper</td>
<td>Hamid MOSTOFI</td>
</tr>
</tbody>
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Literature

Core Part:

Specialized Part:
Chapter 7: Utility Maximization - Chapter 8: Choice Chapter 9: Demand
Module 03 Business (9 ECTS)

Prof. Dr. Dodo zu Knyphausen-Aufseß

Strategic Leadership and Global Management
T.U. Berlin

Dr. Gabriele Grea

Department of Social and Political Sciences
Università Bocconi (Italy)

Aims and Scope
The students will understand the fundamentals of management and business administration/business functions: accounting, marketing and sales, organization, industry analysis, business units and strategy. The students will get acquainted to the concepts of supply chain management, distribution and logistics, production and quality, HR/Personnel, public relations as well as R&D.

Keywords
Fundamentals of management and business administration; management and leadership; shareholder and stakeholder value approach; the concept of strategy; Porter’s Five Forces; SWOT-Analysis; etc.; strategic business units; industry analysis; generic strategies; vertical integration; portfolio analysis; diversification; strategy process; case studies; business models and trends in mobility.

Examination (9 ECTS, pass/fail)
Core Part: online quiz, 60 minutes, pass/fail (20%)
Specialized Part: group presentation, pass/fail (40% oral presentation; 40% presentation material)
### Schedule Core Part

**Tue 10 Nov 2020**  
09:00-17:00 Tutorial: Business Ethics  
Sarah DROLL  
Tutorial: Business Frameworks and Planning Techniques  
Dr. Nadja BERSECK

**Fri. 13/11/20**  
09:00-17:00 Lecture: Basics of Business Administration & Corporate Governance  
Prof. Dr. Dodo ZUNYPHAUSEN-AUFSESS

**Fri 20 Nov 2020**  
09:00-17:00 Lecture: Corporate and Business Management  
Prof. Dr. Dodo ZUNYPHAUSEN-AUFSESS

**Sat 21 Nov 2020**  
09:00-17:00 Lecture: Corporate and Business Management  
Prof. Dr. Dodo ZUNYPHAUSEN-AUFSESS  
*Topic Assignment for Presentations*

**Tue 24 Nov 2020**  
09-00-13:00 Tutorial: Presentation Techniques  
Bettina BROCKMANN

**Fri 04 Dec 2020**  
09:00-17:00 Lecture: Accounting & Finance  
Jun.-Prof. Dr. Karola BASTINI  
(Additional material for e-learning)

**Tue 08 Dec 2020**  
09:00-17:00 Tutorial: Accounting & Finance  
Dr. Maximilian WACHTER

**Fri 11 Dec 2020**  
09:00-17:00 Lecture: Marketing  
Dr. Justin BECKER

**Wed 16 Dec 2020**  
**Quiz - online, 60 minutes, pass/fail.**  
8:00 – 09:00

### Schedule Specialized Part

**Mon 4 Jan 2021**  
13:30-18:30 Lecture Principles and components of business models for sustainable mobility  
Dr. Gabriele GREA

**Thu 07 Jan 2021**  
**Recruiting and CV style**  
9:30-12:30 Alina PFEIFER

**Thu 07 Jan 2021**  
14:00-18:00 Lecture - Principles and components of business models for sustainable mobility  
Dr. Gabriele GREA

**Mon 11 Jan 2021**  
09.30 - 17.00 Lecture - Business model patterns and trends in mobility  
Dr. Gabriele GREA
**Tue 12 Jan 2021**  Lecture - The Evolution of the Market  
09.30 - 17.00  Dr. Gabriele GREA

**Thu 21 Jan 2021 - Final Presentations, pass/fail.**

**Wed 25 Jan 2021**  Recruitment Training  
09:00-13:00  TBA

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**Literature**

**Core Part:**

**Specialized Part:**
2. Centre of Regulation in Europe (2019), Shared mobility and MaaS : The regulatory challenges of urban mobility.
5. ITF (2019), Regulating App-based Mobility Services: Summary and Conclusions, ITF Roundtable Reports, No. 175, OECD Publishing, Paris
7. EIB (2018). Financing innovation in clean and sustainable mobility. Study on access to finance for the innovative road transport sector
8. European Platform on Sustainable Urban Mobility Plans (2019). Overview of the updated SUMP concept


Module 04 Law (6 ECTS)

Prof. Dr. iur. Dr. rer. pol. Dres. h.c.
Franz Jürgen Säcker Hon.Ph.D.(PCCC)
Technische Universität Berlin
Academic Director
MBL European and International Energy Law

Aims and Scope
The students will learn about the fundamentals of Civil, Private and Commercial Law and will recognize the fundamentals of Public Law and its role in regulate the transport-related industry. Finally, the students will get acquainted to the governance and regulatory framework of today’s transport systems, on the i) global, ii) EU and iii) German levels.

Keywords
Legal framework; governance; regulations; public law; business law; German and EU law; e-mobility; autonomous vehicles; public transport systems.

Examination (6 ECTS, graded)
Law paper, 10 pages, graded (100%)

Schedule Core Part

Tue 02 Feb 2021 Various slots Tutorial: Academic Writing Law Paper
Wed 03 Feb 2021 Various slots Tutorial: Academic Writing Law Paper
Dr. Susanne Wende, Eadbhard Pernot
Fri 05 Feb 2021 Lecture: Introduction to Business Law
Prof. Dr. Lydia SCHOLZ

Schedule Specialized Part

Tue 09 Feb 2021 Lecture: Construction and Planning Law
09:30-17:00 Dr. Matthias Lang TBC
Wed 10 Feb 2021 Tutorial: Construction and Planning Law
09:30-12:45 Dr. Matthias Lang TBC
Mon 15 Feb 2021 Lecture: Governance of Public Transport System
09:30-12:45 Prof. Dr. Michael Rodi TBC
Mon 22 Feb 2021 Tutorial: Governance of Public Transport System
09:30-12:45 Prof. Dr. Michael Rodi TBC
Mon 22 Feb 2021  Excursion to IKEM – Institute for Climate Protection, Energy and Mobility
13:45-17:00

Tue 23 Feb 2021  Lecture and Tutorial: Legal framework for autonomous vehicles
09:30-17:00  Prof. Dr. Benjamin von Bodungen

Wed 24 Feb 2021  Tutorial Academic writing
09:30-12:45  Dr. Susanne Wende

Fri 26 Feb 2021  Announcement of Law Paper Topic

Tue 09 Mar 2021  Submission of Law Paper - 10 pages, graded
Prof. Franz Jürgen SÄCKER

Literature

Core Part:

Specialized Part:
TBA
## Other information

### Exam Retakes

April 2021

### Fair Visit: E-world energy & water

Feb. 11\(^{th}\) 2021  
(TBC Please see Moodle for more information)

[Read more](#)

### Fun Events

![Fun Events](image-url)
# 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 gathered; this equals 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.

**Contents**
Individual.

**Form**
Fifty pages, plus introduction and annex (es). In English. Scientific standards prerequisite. More detailed formal requirements to be announced.

**Date tba**
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)