



MBA Sustainable Mobility Management

Three-Semester Master's Degree Course
Taught in English
Berlin, Germany



Welcome to Technische Universität Berlin

Dear Students,

Welcome to the internationally renowned Technische Universität Berlin located in Germany's capital city at the heart of Europe. I am most delighted that you have chosen our institution for your master's degree.

With over 30.000 students, TU Berlin is one of the largest universities of technology in Germany. One of our most important tasks is to prepare our students for the challenges they will face in the future.

The program will provide you with basic knowledge and skills connecting theory, research and practice. For these educational objectives, the EUREF Campus of TU Berlin offers an inspiring atmosphere and a great number of outstanding scientific events.

With this brochure, we would like to help you in getting started at TU Berlin. You will find an introduction to the Master program as well as helpful links and contact details. For further information, please do not hesitate to contact our team of the Academic Advisory and Examination Office. They are here to assist you with all the necessary formalities.

I wish you a motivating and successful time at our university.

Prof. Dr. Christian Thomsen
President



Introduction

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. Hans-Liudger Dienel and **Prof. Dr. Andreas Knie**
Academic Directors

Dr. Massimo Moraglio and **Charlotte Hegel**
Academic Coordinators



Studying Sustainable Mobility Management with the Experts

The growing environmental impact of transport systems, as well as their energy voracity, require new approaches and new concepts. This MBA offers an integrative design across disciplines, addressing a range of different perspectives. The theory and practice-driven approach gives students both a conceptual understanding and the skills needed to tackle practical problems, covering the needs of strategy development, analysis and implementation, complex decision-making and project management.

Students who are the future mobility experts learn in a close cooperation with leading enterprises and institutions located on the EUREF-Campus to become acquainted also with practical projects in the field of energy, infrastructure and mobility.

The program's interdisciplinary content, which covers the social, economic, technical and governance aspects of tomorrow's sustainable mobility, gives students and future employees a distinctive profile and qualifies them for a leading position in the mobility sector.

The students completing this MBA will have career possibilities within transport supplier and equipment industries, national or international organizations, as well as with national, regional or municipal public authorities.

Graduates will be able to plan and manage complex projects in the transport and mobility fields. The program provides the knowledge and skills for assessing projects from social, sustainability and economic perspectives and for creatively, in teams or independently, finding solutions that consider the varying stakeholders' interests. Graduates will either be able to enter the labor market (private and public sector) or continue with postgraduate studies.

Potential employment sectors include, but are not limited to, vehicle and sustainable mobility service design; infrastructure or transport service, operations and administration; transport network planning, development, marketing or regulation; auditing or management of sustainable development policy in a company or public and private institutions.

The Course Program and Structure

The Master program is taught over a period of three semesters. The first two semesters include lectures, tutorials, seminars and excursions. The program will be completed in the 3rd semester by writing a master thesis.

The first semester is dedicated to the fundamentals of mobility and sustainability, considering these issues from different perspectives such as economic factors, social and managerial elements, and naturally including technological drivers.

In the second semester, trends and the future of transport as well as the transition toward sustainable mobility will be the main focus, which encompass also the issue of governance and management of complex structures. A lecture series will provide world-based case studies.

The third semester is mainly devoted to specialization and Master Thesis.

Elective courses for specialization are offered.

Technology	Economics	Social Sciences	Process Management
Technological Fundamental (in Transport)	Economic Fundamental	Mobility Actors and Practices	Law and Governance (in transport)
Data Analysis and ICT (in Mobility)	Business Fundamental	Mobility Trends and Futures	Basics of Urban and Transport Planning
	Business Model and Investment (in Sustainable Mobility)		
Management			
Transition management			
Lecture Series			

Module Course Plan

First Semester	Second Semester	Third Semester
Technology 9 ECTS	Management 6 ECTS	Elective I 6 ECTS
Economics 6 ECTS	Transition Management 6 ECTS	Elective II 6 ECTS
Business 9 ECTS	Mobility Actors and Practices 6 ECTS	Master Thesis 18 ECTS
Law 6 ECTS	Mobility Trends and Futures 6 ECTS	
	Lecture Series 6 ECTS	
30 ECTS	30 ECTS	30 ECTS

Module Description

First Semester

Module 01 – Technology Fundamentals (9 ECTS)

The students will identify and analyze different aspects that are relevant to transport-related techniques and operation. This includes energy sources, drives, efficiency and different principles of transport systems; The students will deepen their knowledge of mobility and propulsion technologies and systems in the framework of today's changing world, laying the technical foundations for the coming modules; the students can use their knowledge to identify and calculate technical potentials and restrictions and assess the relevance regarding sustainability.

Module 02 – Economics Fundamentals (6 ECTS)

The students will recognize the fundamentals of economics, including (but not limited to) prices and markets, markets forms, production and pricing decisions, natural resource economics, merit order effects, external effects, trading in allowances; the students will be able to further use fundamentals in investment decisions, market failures and regulation, sustainability, global commons, security of supply; the students will be able to develop and apply economic theory to the field of transport.

Module 03 – Business Fundamentals (9 ECTS)

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, R&D.

Module 04 – Law and Governance Fundamentals (6 ECTS)

The students will recognize the fundamentals of Civil, Private and Commercial Law; the students 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.

Module 05 – Management (6 ECTS)

The students will understand the fundamentals of management and administration; Leadership, entrepreneurs, economic and company management; Organizational chart; Visions, BaU, planning and control;

The students can apply small group communication, leadership, environmental communication, conflict management; change management.

Module 06 – Transition Management (6 ECTS)

The students will understand the role of social actors and lifestyle in shaping policy and economic patterns; definition of networks socio-technical construction; identify and manage social / economic / technological conflicts and critical aspects of transition to Sustainability. The students will recognize the policy framework conditions; financial tools and business practices needed to implement transition; innovative economic and financial models for investments; social acceptance;

The students can compile different paths and strategic options to form a sustainable mobility concept, including the needed management tools.

Module 07 – Mobility Actors and Practices (6 ECTS)

At the end of this module, students will comprehend the fundamentals of mobility concepts and approaches, transport systems, and theories in sustainable mobility. The focus is to recognize mobility as a socio-technical system.

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

Module 08 – Lecture Series (6 ECTS)

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 centers involved in the transition toward sustainable mobility will present different opinions, case-studies and perspectives.

Third Semester

Module 09 – Mobility Trends and Futures (6 ECTS)

Students will understand mobility trends, in order to ultimately tackle the future complexities of open and interconnected transport. Students will be able to assess societal and technological shifts and changes, gaining knowledge of the forecasting basics in order to develop scenarios and plan long-term concepts in mobility transition.

Master Thesis

The Master thesis is written individually. You can choose your topic and work on the thesis in a company and / or with academic supervision.

Elective

Module 10 – Business Model and Investment (in Sustainable Mobility) (6 ECTS)

The students will know the fundamentals of financial instruments and business practices and apply those to implement sustainable mobility develop current innovative, economic and financial models in transport investment as well as develop traditional and innovative business models.

Module 11 – Data Analysis and ICT (in Mobility) (6 ECTS)

The students will have the fundamentals of i) Data analysis and modelling data, so to supporting decision-making; ii) Data mining;

Students can assess current and future practices of the digitalization within the transport sector and transport services. Students are able to recognize disruptive factors as a consequence of the digitalization within the mobility sector and find suitable solutions as well as develop future scenarios.

Module 12 – Basics of Urban and Transport Planning (6 ECTS)

Students will get acquainted with Transport and urban planning; they will develop knowledge of smart city concepts, theories and criticism; on this basis they can apply analysis methods within different institutional and economical contexts and subsequently develop suitable and effective instruments.

The students can also choose as elective the elective modules offered by the MBA Energy Management and MBA Building Sustainability.

Lecturers

Lecturers who will teach the program:

Julian Alexandrakis	Technische Universität Berlin
Dr. Wulf-Holger Arndt	Technische Universität Berlin
Dr. Maren Borkert	Technische Universität Berlin
Dr. habil. Weert Canzler	Berlin Social Science Center
Prof. Dr. Hans-Liudger Dienel	Technische Universität Berlin
Dr. Ulrike Engel-Ziegler	DB Engineering & Consulting GmbH
Dr. Valentina Fava	Technische Universität Berlin
Dr. Irene Feige	Institute for Mobility Research - BMW Group
Prof. Dr. Dietmar Göhlich	Technische Universität Berlin
Dr. Christian Hoffmann	InnoZ, Berlin
Dr. Angela Jain	Technische Universität Berlin
Prof. Dr. Andreas Knie	InnoZ, Berlin
Prof. Dr. Jan Kratzer	Technische Universität Berlin
Prof. Dr. Barbara Lenz	Institute of Transport Research, Berlin
M.Sc. Tu-Anh Fay	Technische Universität Berlin
Thomas Meissner	Berlin Partner for Business and Technology
Dr. Massimo Moraglio	Technische Universität Berlin
Dr. Hamid Mostofi Darbani	Technische Universität Berlin
Dr. Roland Nolte	IZT - Institute for Futures Studies and Technology Assessment, Berlin
Prof. Dr.-Ing. Thomas Richter	Technische Universität Berlin
Dr. Lisa Ruhrort	Berlin Social Science Center
Dr. Robert Schönduwe	motion-tag.com
Prof. Dr. Claus Tully	Freie Universität Bozen (Free University of Bozen/Bolzano)

Cooperation with Experts

Experts invited for the lecture series:

Prof. Dr. Kay Axhausen	Swiss Federal Institute of Technology in Zurich
Prof. Dr. Felix Creutzig	TU Berlin / Intergovernmental Panel on Climate Change
Dr. Philippe Crist	OECD - International Transport Forum
Alessandro Damiani	EU Directorate General Research
Prof. Dr. Colin Divall	Independent scholar, UK government consultant
Dr. Gabriele Grea	Univ. Bocconi/private consultant, Italy
Prof. Dr. Hans Jeekel	Eindhoven University of Technology, the Netherlands
Dr. Felix Laube	Emch und Berger, Switzerland
Prof. Dr. Glenn Lyons	University of West England, UK
Maria Cristina Marolda	EU Directorate General Move
Dr. Angelo Martino	TRT, Italy
Prof. Dr. David Metz	University College London, UK
Prof. Dr. Corinne Mulley	University of Sydney, Australia
Prof. Dr. Graham Parkhurst	University of West England, UK
Nuno Ribeiro	VTM, Portugal
Dr. Carolin Schröder	TU Berlin
Dr. Bert Toussaint	Ministry of Infrastructure and the Environment, the Netherlands
Prof. Dr. David Tyfield	Lancaster University, UK
Johannes Ziegler	Alceda, Germany



Application for the Master Program

The application deadline is April 30th of each year for a start in October of the same year.

The following documents are required:

- University degree recognized by German universities (at least 210 ECTS),
- Proof of working experience of at least one year after completion of studies, preferably in the relevant areas of transport and planning,
- Tabular CV, with information including educational and professional background,
- Motivation letter in English (max. 1 page A4) educational and professional background,
- Proof of English language proficiency at Level B2 (or higher) of the Common European Framework of Reference for Languages (CEFR) (not required for high school graduation in English),
- Further documents, such as references may be submitted.

You can find more information about the application procedure online on our website:

www.master-in-mobility.com

The number of students is limited to 30 per year. An admission committee will decide about selection based on results of former studies, the study profile, and further relevant qualifications that were attained outside university.

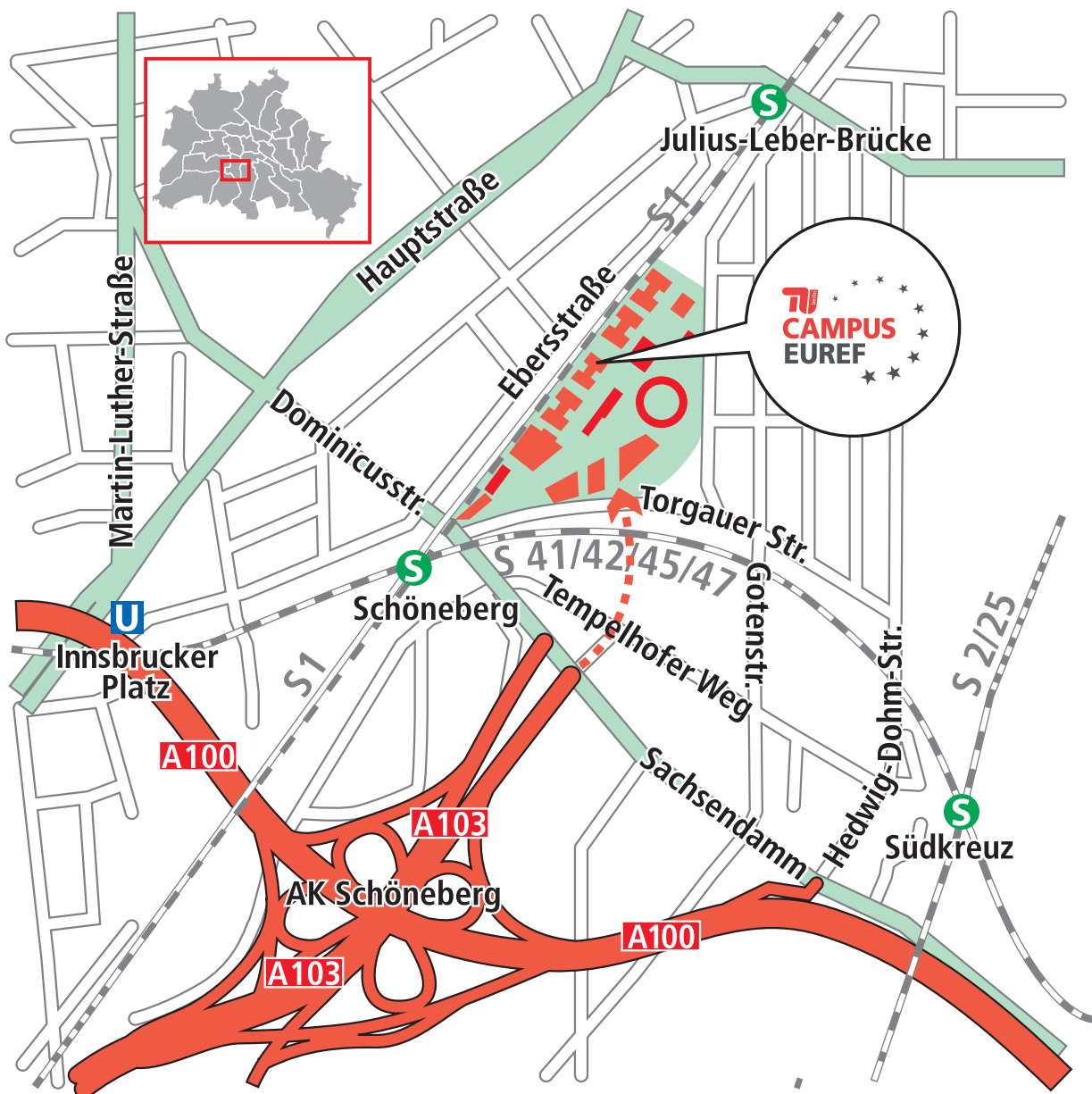
You can send your application via the website, via email, or via postal service.



The EUREF-Campus

The study location is on the site of the European Energy Forum (EUREF) around the historical Gasometer in Berlin-Schöneberg. The Campus is the setting of an innovative community including applied research, economic and policy consultancies mainly based on the philosophy of sustainability.

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Academic Direction and Master Course Team

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Prof. Dr. Hans-Liudger Dienel

Prof. Dr. Andreas Knie

Academic coordinators:

Dr. Massimo Moraglio

Charlotte Hegel

Administration:

Laura Lehmann



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