MBA - Sustainable Mobility Management

Three-Semester Master's Degree

Taught in English

Berlin, Germany

Syllabus

Winter Semester 2017-18

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Imprint

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General Information

Location and Times

Unless otherwise announced, lectures, tutorials, consultancy and peer group meetings take place in Building 9 (Haus 9), EUREF-Campus, Torgauer Straße 12-15 - 10587 Berlin, room S1. Students can access this room during regular office hours for peer groups and individual study for the preparation and revision of lectures and tutorials.

Lectures

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

Semesters

- **First semester** (Winter semester - WiSe 2017-18)
  First lesson on Monday, October 16th, 2017
  Last lesson on Monday, February 19th, 2018

- **Second semester** (Summer semester – SoSe 2018)
  First lesson on Monday, April 16th, 2018
  Last lesson on Friday, July 13th, 2018

- **Third semester** (Winter semester - WiSe 2018-19)
  First lesson: Mid-October 2018
  Last lesson: Mid-February 2018

Lessons

In the first and second semester, the lessons will usually be held on:
Mondays 9:00 – 17:30
Tuesdays 9:00 – 17:30
For the exact titles of lectures, lecturers and literature see below (minor changes may occur).
Attendance is obligatory.

Tutorials

Wednesdays 9:00 – 17:30

Tutorials repeat lecture material, supply supportive information or offer additional training, e.g. in scientific writing. **Attendance is obligatory.**

Consultancy

Students are welcome to seek advice and present ideas in person. Please make an appointment beforehand. Feel free to contact the lecturers concerning issues of a specific course. For any other issue, you can contact the coordinator (or alternatively the academic directors).

E-Learning Platform 'Moodle' and Internet

TUB runs an online learning platform called MOODLE. It is the official channel for announcements, the distribution of material, and registration to events, etc. Students must log on frequently, even during the lecture free periods. Wireless access for all students and lecturers will be provided. TU Berlin's various IT services can be used by all participants.

Exams

A written exam, paper, presentation, or portfolio concludes each module. All subject matter covered in the lectures, tutorials, and compulsory excursions within the module may be subject to examination. Exams start on-time, sharp. A failed examination may be repeated twice. For further details, please refer to the official Study and Examination Regulation (available also at https://master-in-energy.com/wp-content/uploads/Study-and-Examination-Regulations_SMM_ENG.pdf). **Attendance is obligatory.**

Excursions

Extra-curricular excursions and presentations by research institutes or commercial enterprises are foreseen. Registration before attendance may be required.

Participation

Students are encouraged to self-organize, form committees, and vote on a speaker. TU Statutes stipulate student participation on the examination board. Students are asked to choose two German-speaking students (if possible) as their representatives for the examination board. Students are required to provide feedback on lecturers, tutorials, coaching, organization, and service.

Social and academic events

Opening Ceremony

When **October 09th, 2017, 16:00**

Where Water Tower ('Wasserturm') - EUREF Campus
Torgauer Straße 12-15 - 10587 Berlin

What 16:00 – 17:00 Welcome Address
17:00 – 19:00 Music, snacks and drinks, socializing

Christmas Dinner

When **December 15th, 2017, after classes**

Where EUREF Campus
Torgauer Straße 12-15 - 10587 Berlin

What Christmas Dinner

Orientation Week

When	**October 10th, 2017**
Where	EUREF Campus Building 9 - Torgauer Straße 12-15 - 10587 Berlin
What	10:00 – 18:00 EUREF Campus Orientation including a climb up the gasometer. Please dress appropriately for outdoor activities.

When	**October 11th, 2017**
Where	TUB Central Library – Fasanenstraße 88, 10623 Berlin
What	9:30 – 16:00 Library visit and IT boot camp. Bring your TU documents.

When	**October 12th, 2017**
Where	EUREF Campus Building 9 - Torgauer Straße 12-15 - 10587 Berlin
What	10:00 – 13:00 Ice-breaker & introduction to the program

The course program and structure

Module description

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, the future of transport as well as the transition toward sustainable mobility will be the main focus. This will also encompass the issue of governance and management of complex structures. A lecture series will provide world-based case studies and additional broad based information.

The third semester is mainly devoted to specialization and the master thesis.

Elective courses for specialization are offered.

Module Course Plan

<table>
<tr><th>First Semester (WiSe 2017-18)</th><th>Second Semester (SoSe 2018)</th><th>Third Semester (WiSe 2018-19)</th></tr>
<tr><td>M01 - Project Management (in Mobility)
9 ECTS</td><td>M05 - Mobility Trends and Futures
9 ECTS</td><td>M08 - Managing Smart and Green Mobility
6 ECTS</td></tr>
<tr><td>M02 - Mobility Actors and Practices
6 ECTS</td><td>M06 - Managing Transition: Governance and Skills
9 ECTS</td><td rowspan="2">Thesis
18 ECTS</td></tr>
<tr><td>M03 - Technological Foundations in transport
9 ECTS</td><td>M07 - Lecture Series
6 ECTS</td></tr>
<tr><td rowspan="3">M04 - Macro-Economics and Business Models of Sustainable Mobility
6 ECTS</td><td colspan="2">Compulsory electives</td></tr>
<tr><td>M09A - Innovation and Technology Management I - 6 ECTS</td><td>M09B - Innovation and Technology Management II - 6 ECTS</td></tr>
<tr><td>M010 - Managing ICT and Mobility 6 ECTS</td><td>M011 - Mobility and Development 6 ECTS</td></tr>
<tr><td>30 ECTS</td><td>30 ECTS</td><td>30 ECTS</td></tr>
</table>

Module 01 **Project Management (in Mobility)**	**9 ECTS**

	Lectures	
1	**Prof. Dr. Hans-Liudger Dienel**	
Technische Universität Berlin		
Prof. Dr. Hans-Liudger Dienel holds degrees in Mechanical Engineering (Dipl.-Ing., TU München 1990), History and Sociology (M.A. 1989, Ph.D. 1993, University of Munich). He is a full Professor at the Technische Universität Berlin (Berlin University of Technology) for the department of Technology and Society. *Prof. Dienel is a board member of the Centre for Technology and Society and the Center for Metropolitan Studies of TU Berlin, and additionally, of the nexus Institute for Cooperation Management. He is a prolific writer and Editorial Board Member of the following journals: Journal of Transport History, Innovation; The European Journal for Social Sciences; Forum Qualitative Social Research. He is also a board member of the "Society and Technology Board" of the German Association of Engineers (VDI).*		
2	**Dr. Angela Jain**	
Technische Universität Berlin		
Dr. Angela Jain (PhD), a research associate and lecturer at the Technical University of Berlin and director for "Infrastructure and Society" at nexus Institute Berlin, has her academic background in spatial planning and wrote her PhD dissertation on the topic of sustainable mobility. She works in local as well as international project contexts with research focus on sustainable mobility, urban development, and local governance. Her areas of expertise are: policy consultation and cooperation management, user-centric and social innovation in smart cities as well as participation and stakeholder involvement.		

Qualification Aims
At the end of this module, the students will recognize the basics of strategic management and management methods concerning today's challenges in transport and mobility. The students will be able to develop managerial solutions, to tackle issues related to transition toward sustainable mobility and to run appropriate solutions.

Lesson Plan	
Tuesday 17th October 2017 15:30 - 17:30	Project Management Overview I – definition of 'project', challenges and phases of project management
Lesson 1	Lecturer: Dr. Angela Jain

Wednesday 1st November, 2017 9:00 - 11:00	Process vs. project management. Looking at political processes: situational acting and strategic management
Tutorial	Lecturer: Prof. Dr. Hans-Liudger Dienel
Tuesday 14th November, 2017 9:30 - 17:30	Project Management Overview II – understanding the challenges, methods, and procedures of process design
Lesson 2 + Tutorial	Lecturer: Prof. Dr. Hans-Liudger Dienel, Dr. Angela Jain
Tuesday 21st November, 2017 9:30 - 17:30	Organizational aspects and instruments – forming the team, leadership, agenda setting, applying group processes
Lesson 3	Lecturer: Prof. Dr. Hans-Liudger Dienel / Dr. Angela Jain
Wednesday 22nd November, 2017 9:00 - 11:00	Review of the activities
Tutorial	Lecturer: Prof. Dr. Hans-Liudger Dienel
Tuesday 28th November, 2017 9:30 - 17:30	Initiating and defining a project – in theory and in practice (case-study)
Lesson 4 + Tutorial	Lecturer: Prof. Dr. Hans-Liudger Dienel / Dr. Angela Jain
Tuesday 5th December, 2017 9:30 - 17:30	Planning a project I – in theory and in practice (case-study)
Lesson 5 + Tutorial	Lecturer: Prof. Dr. Hans-Liudger Dienel / Dr. Angela Jain
Tuesday 19th December, 2017 9:30 - 17:30	Planning a project II – in theory and in practice (case-study)
Lesson 6 + Tutorial	Lecturer: Prof. Dr. Hans-Liudger Dienel / Dr. Angela Jain
Tuesday 9th January, 2018 9:30 - 17:30	Management methods (waterfall vs. agile) and monitoring
Lesson 7 + Tutorial	Lecturer: Prof. Dr. Hans-Liudger Dienel / Dr. Angela Jain

Wednesday 24th January, 2018 9:00 - 11:00	Applying power purposefully, employing personality and leadership – success factors for project management
Tutorial	Lecturer: Prof. Dr. Hans-Liudger Dienel
Tuesday 30th January, 2018 9:30 - 17:30	Completing a project and lessons learned
Lesson 8	Lecturer: Prof. Dr. Hans-Liudger Dienel / Dr. Angela Jain
Tuesday 6th February, 2018 9:30 - 17:30	Exam (consistent with the Master´s Studien- und Prüfungsordnung)
Examination	Lecturer: Prof. Dr. Hans-Liudger Dienel

Literature
Project Management Institute (2013), *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)–Fifth Edition*, PMI Global Standards (https://www.pmi.org/pmbok-guide-standards/foundational/pmbok)
Bruijn, Hans de; Heuvelhof, Ernst ten; Veld, Roel in't (2002): *Process Management. Why Project Management Fails in Complex Decision Making Processes*, Boston/Dordrecht/London: Kluwer Academic Publishers (http://www.springer.com/la/book/9783642139406)
Prittwitz, Volker von (2012): *Multi-Dimensional Political Analysis New Perspectives for Political Science*, Consulting, and Political Education
Ralf Tils (2007): *The German Sustainable Development Strategy: Facing Policy, Management and Political Strategy Assessments*, in: *European Environment*, Vol. 17, No. 3, 164-176. http://onlinelibrary.wiley.com/doi/10.1002/eet.453/abstract
Von Pierer, Heinrich, and Bolko Von Oetinger. A Passion for Ideas. Purdue University Press, 2001, pp. 1-26. http://www.thepress.purdue.edu/titles/format/9781557532091
A. Longman, Jim Mullins (2005): *The Rational Project Manager: A Thinking Team's Guide to Getting Work Done*, Wiley

Module 02 — 6 ECTS
Mobility Actors and Practices

	Lectures
1	**Prof. Dr. Claus Tully**
Freie Universität Bozen	
Prof. Dr. Claus Tully is an industrial engineer, sociologist (Dipl. Soz.) and Dr. rer. pol. Since 2003 he is Prof. (adjunct professor) at the FU Bozen and since 2003 PD, Dr. habil. (Privatdozent at FU Berlin). He was a researcher at the German Youth Institute (Munich) from 1980- 2014.	

Qualification Aims
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.

Lesson Plan	
Tuesday 17th October, 2017 9:30 - 15:30	Module presentation Definitions of mobility and the social construction of mobility Mobile societies Basic definitions on mobility
Lesson	Lecturer: Prof. Dr. Claus Tully
Wednesday 18th October, 2017 9:30 - 15:30	Development of mobile societies and "Mobile Generations" Project: define the average of distance driven by car by a family in your country.
Lesson	Lecturer: Prof. Dr. Claus Tully
Monday 6th November, 2017 13:30 - 17:30	Transition to new mobility forms: - Mobility on demand - E-mobility - Ride sharing (bikes, scooters, taxi, car, train) - New hardware and services for mobility
Lesson	Lecturer: Prof. Dr. Claus Tully

Tuesday 7th November, 2017 9:30 - 13:30	The future of mobility: manufacturer´s perspective of mobility technology Production work-force and e-mobility Mobility as a differential factor in a modern world
Lesson	Lecturer: Prof. Dr. Claus Tully
Tuesday 7th November, 2017 13:30 - 15:30	Demographics and generational patterns of mobilities Communication and mobilities theories Project: children mobility
Tutorial	Lecturer: Prof. Dr. Claus Tully
Monday 11th December, 2017 13:30 - 17:30	Showroom BMW, Berlin The next generation of mobility. Car as a symbol of technological modernity and a lifestyle element Rural/urban Mobilities Lecture: Assmann “Mobility on Demand” (MobiLAB TU Munich and BMW) Project: personal and digital contacts
Lesson	Lecturer: Prof. Dr. Claus Tully
Tuesday 12th December, 2017 9:30 - 15:30	Socio-technical systems of mobility The role of digital technologies Lecture from: Gabriel Hernández Valdivia: "Services of the digital Mobility Platforms. Theory, industries and potential markets"
Lesson	Lecturer: Prof. Dr. Claus Tully
Monday 22nd January, 2018 13:30 - 17:30	The three Dimensions of “Sustainability”: economic, social, environmental Freight transport and logistic „Assessment of Mobility Stations on Sustainable Urban Mobility “ from Professur für Siedlungsstruktur und Verkehrsplanung, TUM; mobil.LAB Project: How are daily courier services organized?
Lesson	Lecturer: Prof. Dr. Claus Tully
Tuesday 23rd January, 2018 9:30 - 13:30	Mobility in the future, models, concepts, ideas. Technical and organizational solutions for sustainable mobility Excursion to “Technik Museum Berlin,” the beginning and end of cars Introduction to mobility research
Lesson	Lecturer: Prof. Dr. Claus Tully
Monday 12th February, 2018 13:30 - 17:30	Mobility and roots: Always connected, always available Project: How to reduce traffic
Lesson	Lecturer: Prof. Dr. Claus Tully

Tuesday 13th February, 2018 9:30 - 15:30	Effects of social differentiation. On the one hand, mobility works like an option; on the other, someone can be forced to be mobile. Discussion of criteria for the final exam
Examination	Lecturer: Prof. Dr. Claus Tully

Excursion	
Date and time TBD	Excursion to Technik Museum Berlin, the beginning and end of cars
Date and time TBD	Excursion: What is to come: BMW showroom
Date and time TBD	Modern car production: small cars by Opel

Literature

Basic

Adey, P et al. (2014): *The Handbook of Mobilities*, Routledge
Adey, P. (2006): "If mobility is everything then it is nothing". In: *Mobilities* 1/1, pp. 75-94.
Adey, P. (2009): *Mobility*, Routledge London
Cresswell, T. (2006): *On the move*, Routledge
Sheller, M. (2011). Mobility. *Sociopedia*, (for introduction)

More will be indicated at the beginning of the lessons.

Module 03A ***Technological Foundations in Transport* (Planning and Operation of Road infrastructure)**	**4.5 ECTS**

	Lectures	
1	**Prof. Dr.-Ing. Thomas Richter**	
Technische Universität Berlin		
Prof. Richter received his Doctorate of Engineering in 1993 from the Universität Hannover. He is managing director of SHP Ingenieure in Hannover since 1993 and since 2003 is department head for "Road Planning and Operation" at the TU Berlin.		

Qualification Aims
At the end of this module, the students will diagnose several elements relevant to transport engineering and operations, including but not limited to analysis of energy source, propulsion, efficiency and (different) rationales of transport regimes. They will also have an understanding of road design of urban access roads and main roads. The students will utilize such knowledge to implement and planning according to technical potentials and limitations, as well as appraise its relevance in addressing sustainability.

Lesson Plan	
Monday 16th October, 2017 13:30 - 17:30	Introduction in traffic planning Introduction in project "transport infrastructure of EUREF Campus"
Lesson	Lecturer: Prof. Dr. Thomas Richter
Monday 23rd October, 2017 13:30 - 17:30	Traffic planning methodology Traffic network planning
Lesson	Lecturer: Prof. Dr. Thomas Richter
Monday 30th October, 2017 13:30 - 17:30	Introduction in design of urban roads Design of urban main roads
Lesson	Lecturer: Prof. Dr. Thomas Richter

Monday 13th November, 2017 13:00 - 17:30	Excursion to SenUVK Dr.-Ing. Julius Menge "Urban Mobility Plan Berlin" consult colloquium for project "transport infrastructure of EUREF Campus"
Lesson	Lecturer: Dipl.-Ing. Hauzenberger/Marvin Gehrke M.Sc.
Monday 20th November, 2017 13:00 - 17:30	Design of public transport systems Design of facilities for non-motorized transport
Lesson	Lecturer: Prof. Dr. Thomas Richter
Monday 27th November, 2017 13:00 - 17:30	Introduction in urban road operation ITS in urban transportation
Lesson	Lecturer: Prof. Dr. Thomas Richter
Monday 4th December, 2017 13:00 - 17:30	Presentation of project results by students Written exam (50 min)
Examination	Lecturer: Prof. Dr. Thomas Richter

Excursion		
Monday 13th November, 2017 13:00 - 17:30	Excursion to SenUVK Dr.-Ing. Julius Menge "Urban Mobility Plan Berlin"	Referent: Dr.-Ing. Julius Menge

Literature
Reference 1: Michael Meyer, Eric J. Miller (2000) "Urban Transport Planning", McGraw-Hill Science/Engineering/Math; 2 edition
Reference 2: Paul H. Wright, Norman J. Ashford, Robert J. Stammer (1997) "Transportation Engineering: Planning and Design", Wiley; 4 edition
Reference 3: Tumlin, Jeffrey (2012): Sustainable Transportation Planning: Tools for Creating Vibrant, Healthy, and Resilient Communities
Reference 4: FGSV (2006): Directives for the Design of Urban Roads
Reference 5: Sustainable Urban Mobility Plans (SUMP) http://www.mobilityplans.eu
Reference 6: Sustainable Urban Transport Project (SUTP) http://www.sutp.org

Module 03B **Technological Foundations in transport (Fundamentals of Transport Systems)**	**4,5 ECTS**

	Lectures	
1	**Prof. Dr. Dietmar Göhlich**	
	Technische Universität Berlin	
	Prof. Dr.-Ing. Dietmar Goehlich studied mechanical engineering at the Technical University Berlin and received his doctorate from the Georgia Institute of Technology, Atlanta. Since 2010 he leads the chair in Product Development Methods and Mechatronics and in 2015 he became spokesperson for the BMBF research campus Mobility2Grid in Berlin bringing together 36 partners from industry and academia. He previously held a senior management position in the passenger car development of Daimler AG.	
2	**M.Sc. Tu-Anh Fay**	
	Technische Universität Berlin	
	Tu-Anh Fay, M.Sc. studied mechanical engineering at Technical University Berlin with a stay abroad at the National Taiwan UniversityTaipei, Taiwan. Since 2013 she is a research associate at the Technical University Berlin in the Department of Product Development Methods and Mechatronics. Her focus of research lies on the field of calculation and simulation such as the calculation of energy consumption of electric buses.	

Qualification Aims
At the end of this module, the students will recognize the basics of strategic management and management methods concerning today's challenges in transport and mobility. The students will be able to develop managerial solutions, to tackle issues related to transition toward sustainable mobility and to run appropriate solutions.

Lesson Plan	
Monday 18th December, 2017 13:30 - 17:30	Kick-off: Introduction to Electric Mobility and Introduction to experimental learning platform, hand out of topics for assignment
Lesson	Lecturer: Prof. Dr. Dietmar Göhlich and Tu-Anh Fay

Monday 8th January, 2018 13:30 - 17:30	Energy source/Storage systems (SuperCap, Fuel Cell, Battery in comparison to conventional fuel)
Lesson	Lecturer: Prof. Dr. Dietmar Göhlich
Monday 15th January, 2018 13:30 - 17:30	Drivetrain concepts (topology, HEV, BEV, FCV), Auxiliaries
Lesson	Lecturer: Prof. Dr. Dietmar Göhlich
Tuesday 16th January, 2018 9:30 - 17:30	Preparation for tutorial with e-learning at home Consultation hour for assignment - Storage systems
Lesson	Lecturer: Tu-Anh Fay
Wednesday 17th January, 2018 09:00 - 13:30	Preparation for tutorial with e-learning at home, drivetrain and energy consumption
Lesson	Lecturer: Tu-Anh Fay
Monday 29th January, 2018 13:30 - 17:30	Charging strategies and technologies (for passenger vehicles and public transportation) incl. side visit
Lesson	Lecturer: Prof. Dr. Dietmar Göhlich and Tu-Anh Fay
Wednesday 31st January, 2018 9:00 - 11:00	Presentation of students assignments
Tutorial	Lecturer: Prof. Dr. Dietmar Göhlich and Tu-Anh Fay
Monday 5th February, 2018 13:30 - 17:30	TCO and Smart Grid Integration
	Lecturer: Prof. Dr. Dietmar Göhlich
Monday 19th February, 2018 15:30 - 17:30	Written Exam
Examination	Lecturer: Tu-Anh Fay

Excursion		
Monday 29th January, 2018 16:30 - 17:30	Inductive Charging Station at Südkreuz; e-Bus ride (204)	Tu-Anh Fay

Literature
Reference 1: New Generation of Electric Vehicles, Edited by Zoran Stevic, ISBN 978-953-51-0893-1, 384 pages, Publisher: InTech, Chapters published December 19, 2012 under CC BY 3.0 license, DOI: 10.5772/45641

Module 04 - Macro-Economics and Business Models of Sustainable Mobility	6 ECTS

	Lectures	
1	Dr. Valentina Fava	
	Technische Universitaet Berlin	
	Valentina Fava holds a PhD from Bocconi University in Milan (Italy). Before joining TUB, she held research and teaching positions at European University Institute (Italy) and Helsinki University (Finland). Recently, she was awarded a major fellowship (Purkyne Fellowship) from the Czech Academy of Sciences for her project on the European automotive industry.	

Qualification Aims
The first part of the course aims at introducing the students to business models' theory and to its uses in managerial literature and practice. Socio- technical transition framework provides the ground to understand how sustainability challenges affect business strategies in the field of transport and mobility. The automotive industry provides the main case study to describe both the difficulties of business model innovation and the emergence of radical innovative business models. The second part of the course aims at providing to the students some empirical tools to help them to generate business models. Through Osterwalder and Pigneur's handbook, they learn how to use business model canvas and write innovative business models. This serves as an introduction to the analysis of the pros and cons of the emergence of new mobility solutions, as sale-of-service mobility (Maas), car-sharing services; and of the challenges deriving from emerging technologies. The third part of the course focus on the public sector, the role of the state and municipalities in supporting sustainable mobility, on the regulatory activities of the public sector and on the financial instruments at disposal. The last three lessons will be devoted to the group task: students are expected to choose a geographical area (city, countryside), spot unmet needs and business opportunities in terms of sustainable mobility, identify a business solution, assess financial and social revenues and costs of the selected business solution and draft a business model canvas. Evaluation and final exam: the students will be evaluated by the following elements: 25% attendance and participation; 25% oral presentation and group written business model canvas, 50% written individual exam consisting of the explanation and contextualization of the business model canvas in relation to the literature, cases presented and debate with pairs and teacher. At the end of this module, the students will recognise the basics of strategic management and management methods concerning today's challenges in transport and mobility. The students will be able to develop managerial solutions, to tackle issues related to transition toward sustainable mobility and to run appropriate solutions.

Plan of the lessons	
Monday 16.10.2017 09:30- 12:30	Introduction. Business Models for Sustainable Mobility. An Oxymoron?
Lesson	Lecturers present: Valentina Fava and Hamid Mostofi
Monday 23.10.2017 09:30-12:30	System Thinking and Linear Thinking in Transport Planning: a Methodological Introduction
Lesson	Lecturer present: Hamid Mostofi

Monday 30.10.2017 09:30-12:30	What is a Business Model? And Why does it Matter? Business model as management concept – uses, aims and classifications Reading: David J. Teece, Business Models, Business Strategy and Innovation, *Long Range Planning,* 2010, vol. 43, pp 172-194 Frank Boons, Florian Lüdeke-Freund, Business models for sustainable innovation: state-of-the-art and steps towards a research agenda*, Journal of Cleaner Production*, 2014, vol. 45, pp 9-19
Lesson	Lecturer present: Valentina Fava
Monday 06.11.2017 09:30-12:30	Old Actors and New Players of Sustainable Mobility: From Ford to Better Places Reading: Peter Wells (2013), Sustainable Business Models and the Automotive Industry. A Commentary, *IIMB Management Review*, 2013, vol. 25. Issue 4, pp. 228-239
Lesson	Lecturer present: Valentina Fava
Monday 13.11.2017 09:30-12:30	Resisting Innovation. Why it is so difficult to innovate? Introduction to radical "innovative" business models in (auto)mobility (students' presentations: Tesla, Tata nano, Mahindra, Local Motors, etc) Reading: Fabian Kley , Christian Lerch, David Dallinger (2011), New business models for electric cars—A holistic approach, *Energy Policy*, 2011, vol. 39, issue 6, 3392-3403
Lesson	Lecturer present: Valentina Fava
Monday 20.11.2017 09:30-12:30	The Evolution of the Market: From Mobility as a Product to mobility as a Service Discussions of "innovative" business models in automotive industry (students' presentations, Transit; Next bike, etc)
Lesson	Lecturer present: Valentina Fava
Monday 27.11.2017 09:30-12:30	Business Model Canvas: its Components Reading: Osterwalder and Pigneur (2010), Business Models Generation
Lesson	Lecturer present: Valentina Fava
Monday 04.12.2017 09:30-12:30	How to Design an Innovative Business Model? Reading: Osterwalder and Pigneur (2010), Business Models Generation
Lesson	Lecturer present: Valentina Fava
Monday 11.12.2017 09:30-12:30	Race 2050. The Future of European Transport Industry Presentation by Massimo Moraglio Reading: Race 2050 Final Report
Lesson	Lecturer present: Massimo Moraglio
Monday 18.12.2017 09:30-12:30	Business Models for Electrical Mobility: The German path towards Electrical Mobility Presentation by Amit Agrawal Reading: Digital Transformation of Industries: The automotive Industry, White paper, World Economic Forum, 2016 Boyd Cohen, Jan Kiezmann, Ride On! Mobility Business Models for the Sharing Economy*, Organization & Environment*, 2014
Lesson	Lecturer present: Valentina Fava

Monday 08.01.2018 09:30-12:30	The Principles and Components of Business Models for Sustainability Reading: Peter Wells, Business Models for Sustainability, pp. 63-89 https://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/an-integrated-perspective-on-the-future-of-mobility
Lesson	Lecturer present: Valentina Fava
Monday 15.01.2018 09:30-12:30	Public Sector: Financing and Regulating Sustainable Mobility Financial tools and business practices for sustainable mobility Reading: TBA
Lesson	Lecturer present: Hamid Mostofi
Monday 22.01.2018 09:30-12:30	Public Sector: Financing and Regulating Sustainable Mobility Financial tools and business practices for sustainable mobility Reading: TBA
Lesson	Lecturer present: Hamid Mostofi
Monday 29.01.2018 09:30-12:30	Group Task Business Model Canvas: business opportunities and solutions
Lesson	Lecturer present: Valentina Fava
Monday 05.02.2018 09:30-12:30	Group Task Cost and revenues evaluation and Business Model Canvas
Lesson	Lecturer present: Valentina Fava
Monday 12.02.2018 09:30-12:30	Written Exam (120 minutes) Business Model Canvas. Individual task explanation and
Examination	Lecturer present: Valentina Fava

Literature
Peter Wells, Business Models for Sustainability, Cheltenam, Edward Elgar, 2013,
Alexander Osterwalder and Yves Pigneur, Business Models Generation. A Handbook for Visionaries, Game Changers, and Challengers, Wiley, 2010.
Frank W. Geels, René Kemp, Geoff Dudley and Glenn Lyons, Automobility in Transition? A socio-Technical Analysis of Sustainable Transport, New York-London, Routledge, 2012.
Bernd Wirtz, Business Model Management. Design, Processes, Instruments, Speyer, 2016

Tutorial A
Basics of Academic writing

	Lectures
1	**Emily Schneider**
Technische Universität Berlin	
2	**Benjamin Grosse**
Technische Universität Berlin	

Qualification Aims
Acquiring basic knowledge of academic writing, a crucial element for a successful writing of the master thesis.

Lesson Plan		
	Topics covered	Assignment
In person Wednesday, 25th October 2017 16:00-18:00	The tools of academic writing: how to organize the document settings and outline	TBC
	Lecturer: Benjamin Grosse	
In person 08th November 2017 16:00-18:00	The tools of academic writing: how to quote and to organize the sources	TBC
	Lecturer: Benjamin Grosse	
Online One week From 15th November 2017	• Introduction • What is Academic Writing and how is it different from other writing? • Writing as a Process • *In-class activity*: Identifying academic writing vs. non-academic writing	Write a brief (one page or less) letter to a professor proposing a thesis topic and main points you want to cover
	Lecturer: Emily Schneider	

Online One week From 22nd November 2017	• General feedback on letters • Writing as a Process: Brainstorming methods • Building blocks of good essays • The 5-paragraph essay	Write a five-paragraph essay in response to a prompt
	Lecturer: Emily Schneider	
Online One week From 29th November 2017	• Feedback and examples from five paragraph essays • Writing as a Process: Outlining • Reverse outlining as an editing tool	Create an outline of a potential thesis
	Lecturer: Emily Schneider	
In person 9th December 2017 Hour tbd	• Writing as a Process: The importance of first drafts • In-class activity: Brainstorming, outlining, and writing a first draft together in response to a prompt	Expand on your thesis outline from previous class by writing the introduction or executive summary and some of the first points
	Lecturer: Emily Schneider	
In Person 6th January 2018 Hour tbd	• Writing as a Process: Editing and revising • Peer editing vs self-editing • In-class activity: peer editing	Revise and edit thesis draft based on editing practices discussed in class. Send to me for review before individual counselling session
	Lecturer: Emily Schneider	
In person 10-13 January 2018 Details tbc	• Individual writing counselling sessions with me (15 -20 min. per student)	
	Lecturer: Emily Schneider	

Literature and website address
News soon

Tutorial B
Basics of Business Communication

	Lectures
1	**Bettina Brockmann**
San José State University	

Qualification Aims
Acquiring basic knowledge of Business Communication.

Lesson Plan		
	Topics covered	Assignment
Online One week starting October 11th, 2017	News soon	TBC
	Lecturer: Bettina Brockmann	
Online One week starting October 18th, 2017	News soon	TBC
	Lecturer: Bettina Brockmann	
Online One week starting October 25th, 2017	News soon	TBC
	Lecturer: Bettina Brockmann	
Online One week starting November 1st, 2017	News soon	TBC
	Lecturer: Bettina Brockmann	
Online One week starting	News soon	TBC

November 8th, 2017		
	Lecturer: Bettina Brockmann	
In person November 22nd, 2017 13:30 - 18:00	News soon	
	Lecturer: Bettina Brockmann	

Literature and website address
News soon