SUSTAINABLE MOBILITY MANAGEMENT

MBA

Summer Semester 2020
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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
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

https://www.wzb.eu/

Dr. Massimo Moraglio

Academic Coordinator
Unit research leader of EU H2020 project HiReach
Unit research leader of EU H2020 project INTEND

massimo.moraglio@tu-berlin.de

Nora Bonatz

Academic Coordinator

nora.bonatz@campus.tu-berlin.de

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 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 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! 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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Technology and Innovation Management
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salomo@tu-berlin.de

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Institute of Vocational Education and Work Studies
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Ph: +49 (0)30 314-21406 or 29463
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Dr. Angela Jain
Technische Universität Berlin
Institute of Vocational Education and Work Studies
Marchstr. 23 - 10587 Berlin
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jain@tu-berlin.de

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.

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Date</th>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td><strong>Friday, 17 April 2020</strong></td>
<td>9:30 - 17:30</td>
<td>Core Lecture: Introduction to Strategic, Project &amp; Innovation Management</td>
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<td>Prof. Dr. Dodo zu Knyphausen-Aufseß/ Prof. Dr. Søren SALOMO/ Prof. Julian WÉKEL</td>
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<tr>
<td><strong>Saturday, 18 April 2020</strong></td>
<td>9:30 - 17:30</td>
<td>Core Lecture: Operations - Project Management – TIM Quiz (10%)</td>
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<td>Prof. Dr. Søren Salomo/ Prof. Dr. Hans-Luidger Dienel/ Prof. Julian Wékel</td>
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<td><strong>20 – 24 April 2020</strong></td>
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<td>Fair: Hannovermesse (Please find further information on Moodle)</td>
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<tr>
<td><strong>Tuesday, 21 April 2020</strong></td>
<td>8:00 - 18:00</td>
<td>Tutorial (Specialized): Communication Training and Creative Writing</td>
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<td></td>
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<td>Bettina Brockmann, Emily Schneider</td>
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<tr>
<td><strong>Friday, 24 April 2020</strong></td>
<td>9:30 – 13:00</td>
<td>Core Lecture: Quantitative Methods for a Project Plan</td>
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<td>14:00 – 17:30</td>
<td>Prof. Dr. Thomas Volling</td>
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<td>Jun.-Prof. Dr. Karola Bastini</td>
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<tr>
<td><strong>Saturday, 25 April 2020</strong></td>
<td>9:30 - 17:30</td>
<td>Core Lecture: Operations - Project Management - TIM Quiz on Lectures April 17 and 18 (10%)</td>
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<td>Prof. Dr. Søren Salomo</td>
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<tr>
<td><strong>Tuesday, 28 April 2020</strong></td>
<td>08:00 - 12:00 (online)</td>
<td>Tutorial specialized: Communication Training and How to write a Project Plan</td>
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<td>14:00 - 18:00</td>
<td>Bettina Brockmann</td>
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<td>Dr. Nadja Berseck</td>
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<tr>
<td><strong>Monday, 04 May 2020</strong></td>
<td>9:30 - 17:30</td>
<td>Core Lecture: Technology Management</td>
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<td>Prof. Dr. Søren Salomo</td>
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<tr>
<td><strong>Wednesday, 06 May 2020</strong></td>
<td>08:00 - 12:00</td>
<td>Tutorial: Pitch Training / Inhouse Communication Training</td>
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<td>13:00 - 18:00</td>
<td>Bettina Brockmann</td>
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<td>Specialized Excursion (Company visit)</td>
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<tr>
<td><strong>Wednesday, 13 May 2020</strong></td>
<td>8:00 - 9:00</td>
<td>Exam: Written Test on Innovation and Technology Management Lectures (30 minutes) (30%)</td>
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<td>Prof. Dr. Søren SALOMO</td>
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<tr>
<td><strong>Friday, 15 May 2020</strong></td>
<td>9:00 - 12:00</td>
<td>Specialized Lecture: Scrum and agile Project Management: Introduction</td>
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<td>Dr. Angela Jain</td>
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<td>Date</td>
<td>Time</td>
<td>Specialized Lecture</td>
<td>Lecturer</td>
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<tr>
<td>Saturday, 16 May 2020</td>
<td>9:00 - 16:00</td>
<td>Scrum and agile Project Management: Application</td>
<td>Dr. Angela Jain</td>
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<tr>
<td>Tuesday, 19 May 2020</td>
<td>9:30 - 17:30</td>
<td>Business Operations in the Energy Sector – Focus on sustainable mobility</td>
<td>Prof. Dr. Thomas Volling</td>
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<tr>
<td>Wednesday, 27 May 2020</td>
<td>9:00 - 16:00</td>
<td>Methods for stakeholder and user participation</td>
<td>Dr. Angela Jain</td>
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<tr>
<td>Thursday, 28 May 2020</td>
<td>9:00 - 16:00</td>
<td>Ten Commandments of Process Management</td>
<td>Prof. Dr. Hans-Liudger Dienel</td>
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<tr>
<td>Thursday, 04 June 2020</td>
<td>9:00 - 16:00</td>
<td>Ten Commandments of Process Management</td>
<td>Prof. Dr. Hans-Liudger Dienel</td>
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<tr>
<td>Friday, 05 June 2020</td>
<td>9:00 - 12:00</td>
<td>Ten Commandments of Process Management</td>
<td>Prof. Dr. Hans-Liudger Dienel</td>
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<tr>
<td>Wednesday, 01 July 2020</td>
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<td>Handing in of Report (Voice-over PPT) (40%)</td>
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<tr>
<td>Friday, 17 July 2020</td>
<td>9:30 - 17:00</td>
<td>Oral: questions related to delivered report (20%)</td>
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**Literature**

TBA
Module 06 Mobility Actors and Practices
(6 ECTS)

Prof. Dr. Sophia Becker
Technische Universität Berlin
Institute of Vocational Education and Work Studies
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Sekt. MAR 1.1 - Raum MAR 1.028
Telefon: +49 (0)30 314-73905
sophia.becker@tu-berlin.de

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

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**Literature**
TBA
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
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<tr>
<td>Thursday, 14 May 2020</td>
<td><strong>Lecture:</strong> Disruptive Technologies &amp; Future Mobility Systems</td>
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<tr>
<td>09:00 – 13:00</td>
<td>Dr. Roland Nolte</td>
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<tr>
<td>Wednesday, 20 May 2020</td>
<td><strong>Lecture:</strong> Mobility – the global Picture</td>
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<td>09:00 – 13:00</td>
<td>Dr. Roland Nolte</td>
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<td>Monday, 25 May 2020</td>
<td><strong>Oral Exam (40%)</strong></td>
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<td>09:00 – 16:30</td>
<td>Dr. Roland Nolte</td>
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<td>Thursday, 18 June 2020</td>
<td><strong>Lecture:</strong> Urban mobility and big scale scenarios I</td>
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<tr>
<td>10:00 – 17:30</td>
<td>Dr. Irene Feige</td>
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<tr>
<td>Friday, 19 June 2020</td>
<td><strong>Lecture:</strong> Urban mobility and big scale scenarios II</td>
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<tr>
<td>10:00 – 17:30</td>
<td>Dr. Irene Feige</td>
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<tr>
<td>Thursday, 25 June 2020</td>
<td><strong>Lecture:</strong> Urban mobility and big scale scenarios III</td>
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<tr>
<td>10:00 – 17:30</td>
<td>Dr. Irene Feige</td>
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<tr>
<td>Friday, 03 July 2020</td>
<td><strong>Presentation (40%) and Report (20%)</strong></td>
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<td>10:00 – 17:30</td>
<td>Dr. Irene Feige</td>
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**Literature**
TBA
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**

TBA
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

17
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).