ENERGY MANAGEMENT
MBA

Intake 2018 – 2020

Winter Semester 2018 / 2019
Summer Semester 2019
Winter Semester 2019 / 2020

Last update on: June 15, 2019
THIS PUBLICATION REFLECTS THE STATE OF PLANNING AT THE TIME OF PRINTING. CHANGES MAY OCCUR.

TUBS GmbH
TU Berlin ScienceMarketing
Hardenbergstraße 19
10623 Berlin
Deutschland
Dear students,

The energy market is one of today’s most fast-paced, decisive and profitable industries and crucial to both the global economy, the environment and our future society as a whole.

Climate and economic changes, public opinion, technological progress and regulation shape unforeseen challenges and opportunities. This situation calls for new solutions to be delivered by highly skilled and appropriately trained experts with an all-embracing overview, an international outlook and the will to create a true impact. Due to its economic, entrepreneurial and industrial strength as well as its successful and progressive energy policies, the —Energiewende—, Germany stands out as a front runner in the global energy transition. The industry, therefore, requires broadly skilled individuals who are experts in the field.

We are delighted to welcome you to this exciting TU program, where faculty and industry experts convey the latest scientific and practical insights the field, discuss today’s challenges, and prepare students for leading roles in shaping the industry, and society, for the future ahead.

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER
Academic Director

Sarah DREWNING
Academic Coordinator

Jeannette PABST
Academic Coordinator

Sandra LUBAHN
Manager
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Overview
The Energy Management Team

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER
Academic Director MBA Energy Management
Professor for Management of Energy and Resources,
School for Technology and Management,
Faculty for Economics and Management of
Technical University Berlin
https://www.er.tu-berlin.de/

Sarah DREWNING, M.A.
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drewning@campus.tu-berlin.de

Sandra LUBAHN
Administrative Manager
sandra.lubahn@campus.tu-berlin.de

Jeannette PABST, M.A., M.Sc.
Academic Coordinator
j.pabst@campus.tu-berlin.de
Modular Structure

The master program is taught over a period of three semesters. The first semester covers the technical, economic, entrepreneurial and legal foundations for management decisions in the energy sector; the second semester deepens this view and looks at business practises, primarily of grid-based utilities, and investment; the third semester broadens the view while simultaneously focusing on practise 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, room S5.

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 on time!

Fridays
9.30 am - 1.00 pm
2.15 pm - 5.00 pm

Saturdays
9.30 am - 1.00 pm
2.15 pm - 5.00 pm

Tutorials / Company Visits

Wednesdays
Tutorials
8.00 am - 12.00 am

Company Visits
2 pm – 4 pm or Day Trip

Tutorials are mostly held by research associates and assistants of the respective chairs. Of a generally more interactive nature, they repeat lecture material, supply supportive information, offer additional training, and help prepare for lectures and exams.

Company Visits/Presentations are regularly scheduled on Wednesdays or Thursdays. Company Presentations take place on EUREF Campus, House 9, Room S5, whereas 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

Level A1.1: Mondays 4:00pm – 7:30pm, Tuesdays 9:00am – 12:30pm (EUREF Campus)
Level B1.1: Saturdays 9:30am – 1:15pm (Main Campus of TUB)

Language classes incur a small additional fee. Advanced language classes are available, for which the taking of a test is mandatory.

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.
EUREF Master Programs
Orientation Week

October 1\textsuperscript{st} – October 5\textsuperscript{th} 2018 (details)
Main Campus Charlottenburg, EUREF Campus

Campus Tour, Berlin Tour, Library Insights,
Get Togethers, Administrative Duties

Opening, 5\textsuperscript{th} October, 4pm – 6pm
Lichthof / Atrium TU Berlin, Str. des 17. Juni 135, 10623 Berlin

Welcome Addresses Academic Directors
Music, Refreshments

Preparatory Week

October 08\textsuperscript{th} – 12\textsuperscript{th} 2018 (details)

Preparatory content for
Quantitative Methods
Business Administration
Economics

MBA Program First Lecture

October 13\textsuperscript{th} 2018, 9.30am–5pm
Module 01 Technology

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER
Academic Director
Institute Technologie und Management (ITM)
Faculty Wirtschaft und Management
sec. FH 5-3, Room FH 503
Fraunhoferstraße 33-36, 10587 Berlin
+49 (0) 30 314-23214
energymanagement@master.tu-berlin.de

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. Students are taught to apply this knowledge independently to selected cases. Module 2, Economics, runs in parallel.

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.

Schedule

Sat. 13/10/18  Lecture: Introduction – Energy and Energy Markets
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Wed. 17/10/18  Tutorial: Thermodynamics
M.Sc. Benjamin GROSSE
Company Visit: VATTENFALL Power Plant Berlin Mitte

Fri. 19/10/18  Lecture: Renewable Energy Sources
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Mon. 22/10/18  Course of Instruction: Central Library (Zentralbibliothek)
Training with focus on research databases (BUSINESS SOURCE COMPLETE) and introduction to the knowledge portal PRIMOS

Fri. 26/10/18  Lecture: Fossil Fuels, Petroleum Engineering I
Prof. Dr.-Ing. Gioia FALCONE

Sat. 27/10/18  Lecture: Fossil Fuels, Petroleum Engineering II
Prof. Dr.-Ing. Gioia FALCONE

Wed. 31/10/18  Tutorial: Renewables
M.Sc. Benjamin GROSSE
Company Visit (Module 2): NERA Economic Consulting

Sat. 10/11/18  Lecture: Power Grids and Dynamic Grid Control
Prof. Dr.-Ing. Kai STRUNZ
Wed. 14/11/18  Tutorial: Power Grids
Dr.-Ing. Maren KUSCHKE
Company Visit: SENSE Lab, TU Berlin

Thu. 22/11/19  Exam, 8:00 am, written, 90 minutes, graded
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Literature
Module 02 Economics

Prof. Dr. rer.pol. Georg ERDMANN
Head of Department
Berlin University of Technology
Department of Energy Systems
Einsteinufer 25 (TA 8), 10587 Berlin
FT Building, Room 025
+49 (0)30 314 24 656
georg.erdmann@tu-berlin.de

Aims and Scope
This module provides students with core knowledge of economics in the field of energy and provides a grounding in the economics behind the coming modules. Students are taught to apply this knowledge independently to selected cases. It runs in parallel to Module 1, Technology.

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.

Schedule

Sat. 20/10/18 Lecture: Economics I
Prof. Dr. rer.pol. Georg ERDMANN

Wed. 24/10/18 Tutorial
Dipl.-Wirtsch.-Ing. Lars DITTMAR
Company Presentation (Module 1): EUREF AG

Wed. 7/11/18 Tutorial
Dipl.-Wirtsch.-Ing. Lars DITTMAR
Company Presentation: FORSCHUNGSCAMPUS

Fri. 9/11/18 Lecture: Regulation and Incentives
Prof. Dr. Klaus HEINE

Mon. 12/11/18 Lecture: Economics II
Prof. Dr. Aaron PRAKTIKNJO

Tue. 13/11/18 Lecture: Economics III
Prof. Dr. Aaron PRAKTIKNJO

Fri. 16/11/18 Exam, 8:00 am, written, 90 minutes, graded
Prof. Dr. rer. pol. Georg ERDMANN
Literature
Module 03 Business

Prof. Dr. Dodo zu Knyphausen-Aufseß  
Chairman Strategic Leadership and Global Management  
Sec. H 92, Room H 9166  
Straße des 17. Juni 135, D-10623 Berlin  
+49-(0)30-314-28744  
knyphausen@strategie.tu-berlin.de

Aims and Scope
In this module, students learn the fundamentals of strategic management and the basic tools and applications used in the energy sector. Students are taught to apply this knowledge independently to selected cases.

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.

Schedule

Sat. 17/11/18  Lecture: Business I  
Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSSESS

Wed. 21/11/18  Recruitment Training Day  
Schneider Electric GmbH

Fri. 23/11/18  Lecture: Business II  
Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSSESS

Sat. 24/11/18  Lecture: Business III  
Dr. Nadja BERSECK

Wed. 28/11/18  Tutorial  
Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSSESS  
Company Presentation: ÖKOTEC Energiemanagement GmbH

Fri. 30/11/18  Lecture: Business IV  
Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSSESS  
Topic Assignment Presentations

Sat. 1/12/18  Lecture: Management in the Energy Sector  
Market Roles, Functions & Participants in Liberalised Energy Markets  
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER
**Wed. 5/12/18**  
Tutorial: Sustainability and Quality Management + Questions  
Online Quiz (10 am- 12 am)  
Sarah Drewning  
*Company Presentation: e.venture consulting GmbH*

**Fri. 7/12/18**  
**Lecture: Accounting and Finance I**  
Dr. Maximilian WACHTER

**Sat. 8/12/18**  
**Lecture: Accounting and Finance II**  
Dr. Maximilian WACHTER

**Wed. 12/12/18**  
**Quiz, online, 75 minutes**

**Fri. 14/12/18**  
**Tutorial: Presentation Techniques (8am – 12am)**  
Lennart EHRL  
*Company Presentation (1 pm – 2 pm): 50 Hertz  
Meet the Alumni: Ulrike Hintz (Intake 2016)*

**Sat. 15/12/18**  
Supervised Learning: Company Presentation (9.30am – 1pm)  
Sarah DREWNING  
Self Study (2pm – 5pm)

**Fri. 21/12/18**  
**Exam: Presentations, 8 hours, pass / fail**  
Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSESS  
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

**Literature**


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**Christmas Dinner and Celebration**

Dec. 21st 2018, 6pm  
Hotel Abion Berlin
Module 04 Energy Law

Prof. Dr. iur. Dr. rer. pol. Dres. h.c. Franz Jürgen Säcker Hon.Ph.D.(PCCC)
Academic Director
MBL European and International Energy Law
+49 (0)30 / 314 23 288
contact@master-in-energy.com

Aims and Scope
This module presents the legal framework of today's global, EU and German energy markets. Students learn to independently evaluate cases and summarize legal situations.

Keywords
Energy law; energy trade and international contracts; UN conventions; WTO; ECT; contract law; EFET contracts; the legal system of the EU and the Third Energy Package; Germany's Energiewende and EEG; EU secondary law v. regional developments; environmental law; state aid.

Schedule

Fri. 11/1/19  Lecture: Introduction to European Union (Energy) Law
Prof. Dr. Lydia SCHOLZ

Sat. 12/1/19  Lecture: Energy Policy, European Law and Business Practice
Peter HOHAUS

Tue. 15/1/19  Company Presentation:
PONTON GmbH

Wed. 16/1/19  Tutorial
Eleni-Aristea ALEVIZOU
Company Visit: SIEMENS AG, Berlin-Siemensstadt

Fri. 18/1/19  Lecture: The EU Legal Framework for Infrastructure Regulation
Dr. Carsten KÖNIG

Sat. 19/1/19  Lecture: EU Energy Law and Policy
Dr. Oliver KOCH

Wed. 23/1/19  Tutorial
Eleni-Aristea ALEVIZOU

Fri. 25/1/19  Lecture: Energy Law in Practice
Dr. Oliver FRANZ
Lecture: The EU Legal Framework for Energy Wholesale Trading
*rescheduled*
Dr. Annegret GROEBEL

Mon. 15/4/19
see course in Moodle/ISIS

Mon. 28/1/19
Company Visit:
European Energy Exchange Leipzig

Tue. 29/1/19 – Fri. 8/2/19
Paper, 10 pages, graded
Prof. Franz Jürgen SÄCKER

Literature

Fair Visit: E-world energy & water
(5-7th February 2019)
Feb. 6th 2019
(Please see Moodle/ISIS for more information)
Read more

Exam Retakes
April 2019

Start of Summer Term
First Compulsory Lecture:
April 12th 2019
Second Semester

Summer Semester 2019
Additional Course Academic Writing

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

Please choose from the dates and register via Moodle/ISIS:

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<td>Benjamin Grosse</td>
<td>16.00 – 18.00</td>
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<td>Benjamin Grosse</td>
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<td>Wed. 10/4/19</td>
<td>Emily Schneider</td>
<td>17.30 – 19.30</td>
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<tr>
<td>Wed. 24/4/19</td>
<td>Emily Schneider</td>
<td>17.30 – 19.30</td>
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Module 05 Energy Grids

Prof. Dr.-Ing. Kai Strunz
Head of Chair Sustainable Electric Networks
and Sources of Energy
Secr. EMH 1
Einsteinufer 11, D-10587 Berlin
kai.strunz@tu-berlin.de

Aims and Scope
This module deals with the technicalities of grid management in a changing energy environment, the challenges of transformation processes between different forms and sources of energy, and the management response to novel regulations and technological change.

Schedule

01/04/ – 05/04/19
Fair: Hannovermesse
(Please find further information on Moodle)

Wed. 10/04/19
Add. Course: Academic Writing (17.30 – 19.30)
Emily SCHNEIDER, J.D., M.A.

Fri. 12/4/19
Lecture: Semester Intro & Energy Grids Overview
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Sat. 13/4/19
Lecture: Electricity Grids
Prof. Dr.-Ing. Kai STRUNZ

Mon. 15/4/19
Lecture Module Law: The EU Legal Framework for Energy Wholesale Trading*rescheduled*
Dr. Annegret GROEBEL

Wed. 17/4/19
Tutorial
Dr.-Ing. Maren KUSCHKE
Add. Course: Academic Writing (16.00 – 18.00)
M.Sc. Benjamin GROSSE

Wed. 24/4/19
Company Presentation (14.00 – 17.00)
EADP: Energy access, rural electrification, and entrepreneurship,
Dawud ANSARI
Add. Course: Academic Writing (17.30 – 19.30)
Emily SCHNEIDER, J.D., M.A.

Thu. 25/4/19
Add. Course: Academic Writing (16.00 – 18.00)
M.Sc. Benjamin GROSSE

Fri. 26/4/19
Lecture: Regulated Grids
Prof. Klaus HEINE
Sat. 27/4/19  Lecture: Sector Coupling  
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Fri. 03/5/19  Lecture: Grid Management I  
Dr. Bodo HERRMANN  
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Sat. 04/5/19  Lecture: Grid Management II  
Dr. Frank Peter HANSEN  
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Wed. 08/5/19  Tutorial: Sector Coupling / Q&A  
M.Sc. Benjamin GROSSE

Wed. 15/5/19  Exam, 2 hours, graded (9.00 – 11.00 am)  
Prof. Dr.-Ing. Kai STRUNZ

Kickoff M7  Business Communication Kickoff (live, 2hrs)  
Bettina BROCKMANN

Keywords

Power flow, active and reactive power, power system control, blackouts, network topologies, challenges of renewable energy integration; grid management, balancing; liquid fuels and pipelines vs. electricity transmission; convergence, substitution and inter-operability; redundancy principle; sector coupling, power-to-gas; power-to-heat; mobility-to-grid; responding to network development plans.

Literature

Module 06 Investments

Prof. Dr. Christian von Hirschhausen  
Chair Workgroup for Infrastructure Policy (WIP)  
Berlin University of Technology  
Straße des 17. Juni 135, D-10623 Berlin  
+49-(0)30-314 25 048  
cvh@wip.tu-berlin.de

Aims and Scope  
This module looks at energy infrastructure from a decision maker point of view. Grids, storage facilities and power plants are large-scale long-term investments of national, if not international, scope and importance. How are such projects assessed, how can they be insured, how are they realised, etc. It runs in parallel to the communication block of module 7.

Schedule

**Thu. 16/5/19**  
Lecture and integrated course: Investments I  
Prof. Dr. Christian VON HIRSCHHAUSEN, Dipl.-Ing. Jens WEIBEZAHN

**Fri. 17/5/19**  
Lecture and integrated course: Investments II  
Dipl.-Ing. Jens WEIBEZAHN

**Sat. 18/5/19**  
Lecture and integrated course: Investments III  
Dr. Clemens GERBAULET

**Wed. 22/5/19**  
Company Presentation + Study Case (11.00 – 13.00)  
IEG - Investment Banking Group  
Executive Director Sebastian SCHIRL  
Company Visit (14.00 – 17.00)  
TenneT Virtual Vision Berlin  
(rescheduled from 2nd May, Module Energy Grids)

**Fri. 24/5/19**  
Lecture: Investments in Renewables I  
Dr. Florian LEUTHOLD

**Sat. 25/5/19**  
Lecture: Investments in Renewables II  
Dr. Florian LEUTHOLD

**Wed. 29/5/19**  
Tutorial (9.00 – 13.00)  
Dipl.-Ing. Jens WEIBEZAHN  
**Lecture: Energy and Transport Grids** (14.00 – 17.30)  
Prof. Dr.-Ing. D. GÖHLICH  
(rescheduled from 24th April, Module Energy Grids)

**Wed. 05/6/19**  
Fundamental Modelling Investments IV  
Dipl.-Ing. Jens WEIBEZAHN

**Fri. 07/6/19**  
Fundamental Modelling Investments V  
Dipl.-Ing. Jens WEIBEZAHN
Tue. 18/06/19  Company Presentation: Deutsche Bank (13.30 – 16.30 pm)
Energy Procurement, EcoPMO, ISO 50001, Case Studies
Amadé Himmelrich, Assistant Vice President Engineering RSDM
Germany, Deutsche Bank

Fri. 21/6/19  Difficult Dialogue
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER
Bettina BROCKMANN
Dr. Clemens GERBAULET
Dr. Bodo HERRMANN

Wed. 26/6/19  Exam, written, 4 hours, graded (9.00 am – 1.00 pm)
Prof. Dr. Christian VON HIRSCHHAUSEN

Wed. 26/6/19  Company Presentation (14.00 – 15.00, EUREF, room S5)
50Hertz
Additional Course (15.30 – 17.00):
Tutorial/FAQ: Preparation for Master Thesis and Term III
Sarah Drewning, M.A.

Keywords
Fixed asset investment; CAPEX; infrastructure, power plants, grids and storage as
capital investment options; risk assessment and risk management; portfolio theory
and portfolio management; foreign direct investment (FDI); financial tools,
insurances, derivatives; investment project team management.

Literature
Module 07 Management

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER
Prof. Dr. Georg ERDMANN

Aims and Scope

This module looks at the implications of the changing energy landscape for industrial organisations, for planning, management and controlling. How can businesses benefit from our understanding of the legal and economic framework? How do we operate, and how do we communicate?

Schedule

**Wed. 15/5/19**  
Business Communication Kickoff (live, 2hrs)  
Bettina BROCKMANN

**15/5–12/6/19**  
Business Communication: Online 4 sessions  
Bettina BROCKMANN

**Wed. 12/6/19**  
Business Communication: Dialogue (09.30 – 15.00)  
Joint session with students from San José State University, USA  
Bettina BROCKMANN

**Sat. 15/6/19**  
Energy Management: Introduction  
Prof. Dr. Joachim MÜLLER-KIRCHENBAUER

**Wed. 19/6/19**  
Energy Sector Management I  
Dr. Christian NABE

**Sat. 22/6/19**  
Business Communication: In-house  
Bettina BROCKMANN

**Thur. 27/6/19**  
Company Visit (14.00 – 17.00)  
Siemens Future Lab (Berlin)

**Fri. 28/6/19**  
Germany’s ‘Energiewende’—State of Affairs  
Prof. Dr. Georg ERDMANN

**Wed. 03/7/19**  
Tutorial: Business Plans (09.30-13.00)  
Dr. Nadja BERSECK

**Thur. 04/7/19**  
Company Visit: KPMG  
Meet the Alumni: Christian BUSCH

**Fri. 05/7/19**  
Energy Sector Management II  
Dr. habil. Hans-Günter SCHWARZ
Sat. 06/7/19  
**Energy Sector Management III**
Dr. habil. Hans-Günter SCHWARZ

Wed. 10/7/19  
**Additional Course (11.00 – 12.30):**
*Tutorial/FAQ: Preparation for Master Thesis and Term III*
*Sarah Drewning, M.A.*

Thur. 11/7/19  
**Submission date: business plan, graded (40%)**

Fri. 12/7/19  
**Presentation 09.30 – 17.00**
*oral, 5 minutes per student, graded (10%)*
Prof. Dr. Joachim MÜLLER-KIRCHENBAUER

Wed. 17/7/19  
**Test, written, 85 minutes, graded (40%)**
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Fri. 19/7/19  
**Exhibition, written, poster, graded (10%)**

**Examination Form**
Participants will be assigned to compose a business plan, write a test, and contribute orally. These three parts are weighted 40 / 40 / 20 % in the overall grade.

**Block on Communication**
In a blended learning module, communication strategies are taught and trained.

**Keywords**
Energiewende; value pools, business ideas, proposals, plans, and models in changing technological and regulatory environments; small group communication, conflict management, leadership communication; facilitation, mediation; change management.

**Literature**
tba
Third Semester

2019 – 20
Welcome the new students! 😊

EUREF Master Programs
Orientation Week

October 7th – October 11th (details tba)
Main Campus Charlottenburg, EUREF Campus

Campus Tour, Berlin Tour, Library Insights,
Get Togethers, Administrative Duties

Opening, 11th October, 4pm – 6pm
Lichthof / Atrium TU Berlin, Str. des 17. Juni 135, 10623 Berlin

Welcome Addresses Academic Directors
Music, Refreshments

Lecture period Winter Semester 2019/20

October 14th 2019 - February 15th 2020
Module 08 Elective Compulsory

Aims and Scope
In their last module, students look at current energy related practical issues and challenges. Students choose either sub-module Module 8-A Efficiency Management or Module 8-B Innovation Management. In parallel, students work on their master thesis.

Module 8-A Efficiency Management

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER
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Faculty Wirtschaft und Management
sec. FH 5-3, Room FH 503
Fraunhoferstraße 33-36, 10587 Berlin
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energymanagement@master.tu-berlin.de

Aims and Scope
Students look at technical projects and products such as buildings, plants, city planning and apply the knowledge gained in prior modules in case studies.

Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fr. 1/11/19</td>
<td>Efficiency Management I</td>
<td>Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER</td>
</tr>
<tr>
<td>Sat. 2/11/19</td>
<td>Efficiency Management II</td>
<td>Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER</td>
</tr>
<tr>
<td>Fr. 15/11/19</td>
<td>Efficiency Management III</td>
<td>Dr. Armin KRAFT</td>
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<td>Stephan Seim, MSc</td>
</tr>
<tr>
<td>Sat. 16/11/19</td>
<td>Efficiency Management IV</td>
<td>Dr. Armin KRAFT</td>
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<tr>
<td>Fr. 6/12/19</td>
<td>Efficiency Management V</td>
<td>Dr. Armin KRAFT</td>
</tr>
<tr>
<td>Sat. 7/12/19</td>
<td>Efficiency Management VI, Interim Presentations</td>
<td>Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER</td>
</tr>
</tbody>
</table>
Fr. 31/1/20

Final presentations + documentations, discussions
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Sat. 01/2/20

Final presentations + documentations, discussions
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Exam

Portfolio, pass / fail.
25% presentation, 50% documentation, 25% discussion participation.
Prof. Dr. Joachim MÜLLER-KIRCHENBAUER

Keywords
Buildings and energy efficiency; greenhouse gas emissions, demand side management, combined heat and power generation, process chain management, energy efficiency technologies, payback calculation methods, local heat and cooling grids, project management, ISO standards.

Literature


Module 8-B Innovation Management
Managing Sustainable Innovations

Supervisors
Julian ALEXANDRAKIS, Dr. Maren BORKERT
Chair of Entrepreneurship and Innovation Management
Berlin University of Technology
Straße des 17. Juni 135, Sekr. H 76, Room H 7167, 10623 Berlin
Tel: + 49 (0) 30 31428361
Mail Contact Form Alexandrakis
Mail Contact Form Borkert

Aims and Scope
The module Managing Sustainable Innovations (MSI) is an interdisciplinary project, which awards 10 ECTS. The course provides theoretical input sessions about Innovation Management, Project Management, Team Building, and Business Research Methods. The students will apply this knowledge to a project, following a user-centred design approach. Together with different stakeholders (Industry, Government and Start-Ups) the teams will develop a business model and prototype based on a given problem. Finally, the teams hand in a written project report and give an oral presentation on their prototype.

Exam
Portfolio, pass / fail.
Assessment of 50 % group work and written project report + 50 % final presentation (incl. Prototype)
## Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Thursday</th>
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<tbody>
<tr>
<td>24.10.</td>
<td>09:30</td>
<td>Introduction Lecture MSI</td>
<td>Open &amp; User Innovation</td>
<td>Reload &amp; Kick-Off Presentations</td>
<td>Iteration</td>
<td>Social Media Analytics I</td>
<td>Project Report &amp; Pitch Preparation</td>
</tr>
<tr>
<td>25.10.</td>
<td>11:15</td>
<td>Teaming</td>
<td>tba</td>
<td>Quant Data Collection-Survey Design</td>
<td>Business Model Development I</td>
<td>Social Media Analytics II</td>
<td>Project Report &amp; Pitch Preparation</td>
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<tr>
<td></td>
<td>13:45</td>
<td>Innovation Management Basics</td>
<td>World Café</td>
<td>Quant Data – Questionnaire</td>
<td>Business Model Development II</td>
<td>Rapid Prototyping</td>
<td>Assessment: Final presentation</td>
</tr>
<tr>
<td>07.11.</td>
<td>15:15</td>
<td>Regional &amp; Local Innovation Systems Introduction</td>
<td>Ideation</td>
<td>Quant Data – Pre-Test</td>
<td>3D- Business Modelling</td>
<td>Pitch Training</td>
<td>Assessment: Final presentation</td>
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<td>14.11.</td>
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<td>05.12.</td>
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</table>
Keywords
Ideation; prototyping; quantitative and qualitative methods; innovation management; team building and team management; innovation assessment; systematic modelling; agile methods; software; synergy; innovation pathways; venture teams; temporary task forces; restrictive vs. promotive control; inter-organizational teams.

Literature
Module 09 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, 62 CP must have been gathered; this equals successful completion of all mandatory modules M1-M7. 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. Please see ISIS/Moodle for more information.

Form

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

26/06/19 and 10/07/19

Tutorial/FAQ: Preparation for Master Thesis and Term III
Sarah Drewning, M.A.

Graduation Ceremony MBA Energy Management 2017-19

July 19th 2019

Graduation Ceremony MBA Energy Management 2018-20

July 24th 2020
Details to be announced
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).
Faculty
## Lecturers & Tutors

<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eleni-Aristea ALEVIZOU, MBL</td>
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</tr>
<tr>
<td>Dr. Nadja BERSECK</td>
<td>Senior Analystin Sustainability Management and Futurology Deutsche Bahn AG</td>
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<tr>
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</tr>
<tr>
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</tr>
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</tr>
<tr>
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<tr>
<td>Lecturer &amp; Tutors</td>
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</table>
| **Prof. Dr. Gioia FALCONE**  
Rankine Chair - Professor of Energy Engineering  
University of Glasgow, Imperial College London  
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| **Dr. Oliver Helge FRANZ**  
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| **Prof. Dr.-Ing. Dietmar GÖHLICH**  
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| **Dr. Frank Peter HANSEN**  
Senior Manager  
Tennet TSO GmbH Former Bundesnetzagentur  
http://www.tennet.eu/ |
<table>
<thead>
<tr>
<th>MBA ENERGY MANAGEMENT</th>
<th>Lecturer &amp; Tutors</th>
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<tbody>
<tr>
<td><strong>Prof. Dr. Klaus HEINE</strong>&lt;br&gt;Law and Economics&lt;br&gt;Erasmus School of Law, Rotterdam&lt;br&gt;Jean Monnet Chair of Economic Analysis of European Law&lt;br&gt;<a href="http://klausheine.eu/">http://klausheine.eu/</a></td>
<td><img src="image1.jpg" alt="Prof. Dr. Klaus HEINE" /></td>
</tr>
<tr>
<td><strong>Dr. Bodo HERRMANN</strong>&lt;br&gt;Head of Unit: Grid Development / Expansion&lt;br&gt;Bundesnetzagentur&lt;br&gt;<a href="http://www.bundesnetzagentur.de/">http://www.bundesnetzagentur.de/</a></td>
<td><img src="image2.jpg" alt="Dr. Bodo HERRMANN" /></td>
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<tr>
<td><strong>Prof. Dr. Christian VON HIRSCHHAUSEN</strong>&lt;br&gt;Economic Policy and Infrastructure Policy&lt;br&gt;Berlin University of Technology&lt;br&gt;DIW Berlin (German Institute for Economic Research)&lt;br&gt;Massachusetts Institute of Technology&lt;br&gt;<a href="https://www.wip.tu-berlin.de/">https://www.wip.tu-berlin.de/</a></td>
<td><img src="image3.jpg" alt="Prof. Dr. Christian VON HIRSCHHAUSEN" /></td>
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<tr>
<td><strong>Peter HOHAUS</strong>&lt;br&gt;Senior Policy Advisor&lt;br&gt;Uniper SE&lt;br&gt;<a href="http://uniper.energy">http://uniper.energy</a></td>
<td><img src="image4.jpg" alt="Peter HOHAUS" /></td>
</tr>
<tr>
<td><strong>Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSESS</strong>&lt;br&gt;Strategic Leadership and Global Management&lt;br&gt;Berlin University of Technology&lt;br&gt;<a href="https://www.strategie.tu-berlin.de/">https://www.strategie.tu-berlin.de/</a></td>
<td><img src="image5.jpg" alt="Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSESS" /></td>
</tr>
<tr>
<td><strong>Dr. Oliver KOCH</strong>&lt;br&gt;Deputy Head of Section&lt;br&gt;DG Energy-European Commission&lt;br&gt;<a href="https://ec.europa.eu/energy/">https://ec.europa.eu/energy/</a></td>
<td><img src="image6.jpg" alt="Dr. Oliver KOCH" /></td>
</tr>
<tr>
<td><strong>Dr. Carsten KÖNIG</strong>&lt;br&gt;Academic Officer&lt;br&gt;University of Cologne&lt;br&gt;Chair for Civil Law, Competition Law, Regulatory Law, Law of the Digital Economy&lt;br&gt;<a href="http://www.ls-koerber.de">www.ls-koerber.de</a></td>
<td><img src="image7.jpg" alt="Dr. Carsten KÖNIG" /></td>
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<td>Lecturer &amp; Tutors</td>
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<tr>
<td><strong>Dr. Armin KRAFT</strong></td>
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<tr>
<td>CEO</td>
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<td>EEB Enerko</td>
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<td><a href="http://enerko.de/">http://enerko.de/</a></td>
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</tbody>
</table>

| **Dr.-Ing. Maren KUSCHKE**  |
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| COO TU Berlin  |

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| **Dr. Christian NABE**  |
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| **Prof. Dr.-Ing. Aaron PRAKTIKNJO**  |
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<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Institution</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. Dr. Lydia SCHOLZ</td>
<td>Economic and Business Law</td>
<td>Hochschule Bremen</td>
<td><a href="http://www.hs-bremen.de/">http://www.hs-bremen.de/</a></td>
</tr>
<tr>
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<td>Berlin University of Technology</td>
<td><a href="http://www.eecs.tu-berlin.de/">http://www.eecs.tu-berlin.de/</a></td>
</tr>
<tr>
<td>Dr. Maximilian WACHTER</td>
<td>Strategic Assistant to the CEO Phoenix Pharmahandel GmbH &amp; Co. KG</td>
<td>Phoenix Pharmahandel GmbH &amp; Co. KG</td>
<td><a href="http://www.phoenixgroup.eu/de">http://www.phoenixgroup.eu/de</a></td>
</tr>
<tr>
<td>Dipl.-Ing. Jens Weibeizahn</td>
<td>Research Associate Berlin University of Technology</td>
<td>Workgroup for Infrastructure Policy (WIP)</td>
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