

BUILDING SUSTAINABILITY IN URBAN FUTURES MBA



Intake 2025 – 2026

Summer Semester 2025/26

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THIS PUBLICATION REFLECTS THE STATE OF PLANNING AT THE TIME OF PRINTING. CHANGES MAY OCCUR.

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Dear Students,

The concept of the German “Energiewende” – literally, energy transition – has gained international attention. It includes a variety of measures that aim at making Europe’s largest economy free of fossil fuels and nuclear energy. In order to attain this, all areas of energy production and consumption will have to go through a transition process. Besides mobility and production, buildings are therefore one of the key factors for a successful Energiewende. In the building sector, this means redirecting from a mainly fossil-fueled energy supply towards renewable energies and a much more energy-efficient use of energy in buildings and urban, as well as, regional areas. This is one of the largest and most urgent challenges of current urban development and other social disciplines.

Finding solutions to such a complex challenge means that a multitude of actors, from business, civil society, to public administration take part in the process and influence it with their differing and often conflicting interests. Resulting from this is the need for skilled workers who, based on highly professional qualifications, both understand all stakeholders and are able to work in a leading position with them.

The MBA program in Building Sustainability in urban Futures will teach you exactly this: skills, methods, and concepts to consider different approaches, to understand them, and to align them for reaching sustainable solutions. Such proficiencies are not only important in the context of the Energiewende, but are indispensable in every building, construction and real estate project that takes energy efficiency and the other sustainability criteria like economic, ecological, social, and cultural balances into account.

In this regard, you will learn a lot from our experts, coming from research labs and scientific institutions as well as from the practical areas of planning and implementation. You will also learn from your classmates and hopefully enjoy the international, interdisciplinary teamwork as well as Berlin’s urban and cosmopolitan atmosphere.



Prof. Julian Wékel
Academic Director

Overview



The Building Sustainability Team

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Academic Director

Building Sustainability in Urban Futures MBA

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Studying Management Methods for Energy Efficiency with The Experts

According to the German Advisory Council on Global Change, by 2050, the urban population alone will be larger than the current total world population. This will lead to considerable challenges for the planning and the construction sector since roughly the same amount of infrastructure will be added in the next three decades as has been built since the beginning of industrialization. In addition, most of the existing infrastructure will have to be renewed in the same period. “For example, if the expansion of infrastructure has a CO₂ footprint that is similar to that of the current infrastructure of cement, steel, and aluminum in industrialized countries, the construction of new infrastructures in developing countries and emerging economies alone could lead to around a third of the total available CO₂ budget if the temperature increase is to be limited to 1.5°C.”¹

In addition to the technical aspects regarding CO₂ saving solutions, strategic concepts for communication and cooperation are crucial for success in large-scale and structural important projects. Whereas building a house has become a manageable task, things become much more complicated when considering the urban environment and wider interests such as energy efficiency and other relevant factors of climate protection. The master program Building Sustainability focusses therefore not only on technical and economic perspectives but also aims at imparting basic knowledge in other relevant disciplines. This means that the scope of the program is both broad and specific at the same time. The combination of technology, management, and sustainability-related topics is, therefore, a unique opportunity for young professionals to extend their skills and prepare for important planning and construction-related team functions in this huge challenge of the 21st century.

Whereas the Building Sustainability program is new, there is already plentiful experience in conducting practice-orientated master programs on the EUREF campus. The first program started in October 2012, was taught in German, and focused on energy-efficient construction and operation of buildings. As a Master of Science, it was an interdisciplinary program with a very specific focus. It turned out, however, that this subject matter needs a broader scope. Two other Master programs – European and International Energy Law (Master of Business Law) and Energy Management (MBA) – also showed high international demand in the field of energy and sustainability. Therefore, current, and former students, teachers, and professionals re-designed the program and created Building Sustainability (MBA) with a schedule that focusses not only on engineers and architects but also on urban planners, economists, and project managers.

The idea is that sustainable project results can only be achieved in the extensive cooperation of all stakeholders, considering economic, ecological, social, and cultural aspects. Managing and moderating such cooperation is one of the major challenges

¹ WBGU – German Advisory Council on Global Change (2016): Humanity on the move: Unlocking the transformative power of cities. Summary. Berlin: WBGU

of implementing sustainability in planning and building projects of all scales. The program aims therefore on enabling students to understand the complexity of sustainable planning and management processes and to develop solutions accordingly. This will happen in modules with different approaches: some will teach facts and numbers, others will facilitate connections between different fields and the soft skills of mediating between them, and some are designed to apply these competencies to practical projects.

Graduates will be able to moderate and manage complex projects in the construction, real estate, and planning sector. The program provides the knowledge and skills for assessing projects from technical, ecological, and economic perspectives and for creatively finding solutions to consider the varying stakeholders' interests, in teams or independently. Graduates will either be able to enter the labor market in both the private and public sectors or continue with postgraduate studies.



Modular Structure

Building Sustainability in Urban Futures

	1 st Semester	2 nd Semester	3 rd Semester	
Orientation Week	Technology 9 ECTS	Management 12 ECTS	Compulsory Elective I 6 ECTS	Graduation Ceremony
	Economics 6 ECTS		Compulsory Elective II 6 ECTS	
	Business 9 ECTS	Smart Buildings & the Integration of Renewable Energies 6 ECTS	Master Thesis 18 ECTS	
	Law 6 ECTS	Energy Performance of Buildings 6 ECTS		
		Lecture Series 6 ECTS		
		30 ECTS	30 ECTS	

The master's program is taught over three semesters.

- The first semester covers the Technical, Economic, Entrepreneurial, and Legal foundations for management decisions in building sustainability.
- The second semester deepens this view and looks at Management, Energy Performance of buildings, Smart Buildings & Integration of Renewable Energies, and Lecture series.
- The third semester broadens the view while simultaneously focusing on practice according to the student's 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. The time is CET.

Semesters

Winter Semester 2025/26

Duration of the semester: 01.10.2025 - 31.03.2026
Lecture period: 13.10.2025 - 14.02.2026
Lecture-free period: public holidays and 22.12.2025 - 03.01.2026

Summer Semester 2026

Duration of the semester: 01.04.2026 - 30.09.2026
Lecture period: 13.04.2026 - 18.07.2026
Lecture-free period: public holidays

Winter Semester 2026/27

Duration of the semester: TBC
Lecture period: TBC
Lecture-free period: public holidays TBC

Lectures

Lectures are held by professors and academic staff of TU Berlin and other universities, and by professionals of the construction and real estate industry. Lectures are divided into core and specialized lectures. Core lectures teach the basics and are relevant for students of all MBA programs; specialized lectures are designed for students of the Building Sustainability program to dive deeper into "Building".

Group work is frequent. Homework may be assigned. Lectures start on time!

Company Visits

Company Visits give the opportunity to go and see the company on-site and see course-content livelier presented. Registration before attendance may be required.



German Classes

Language classes are offered on campus and incur a small additional fee. Advanced language classes are available, for which taking a test is mandatory. For more information, visit the website of Sprach- und Kulturbörse [here](#).

E-Learning Platform 'Moodle' and wireless LAN

Information **S**ystem for **I**nstructors and **S**tudents (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 [wireless LAN](#) (WLAN) with full coverage across its campus. Students can 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.**

Grading Scale

Grade	Assessment	Definition
1.0 / 1.3	Very good	Outstanding performance
1.7 / 2.0 / 2.3	Good	Performance above average requirements
2.7 / 3.0 / 3.3	Satisfactory	Complies with the average overall requirements
3.7 / 4.0	Adequate	Performance which, despite some flaws, still complies with performance requirements
5.0	Inadequate	Performance with significant flaws which does not comply with requirements



Second Semester SoSe 2026



Start of Summer Term

Lecture period

13.04.2026 - 18.07.2026



Module Management (12 ECTS)

Prof. Dr. Søren Salomo

Chair of Technology and Innovation Management

Sekr. H71, Room H 7104

Straße des 17. Juni 135 | 10623 Berlin

Phone: 0049-30-314-26728

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Aims and Scope

Students are able to independently identify, analyze and design strategic and operational approaches to managing technologies and innovation, 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 energy management, apply problem-solving skills to case studies using different fields of knowledge, and present options for optimizing the energy sector.

Keywords

Business models & plans, small group communication, leadership, environmental communication, corporate social responsibility (CSR), conflict management, change management, risk management; operational excellence, system services and energy services, Germany's energy transformation, management of reactive power, energy storage and transformation, links to the energy, building and mobility sector and management.

Examination (12 ECTS, graded)

Part 1: Online Quiz, written, 60 minutes (20%)

Part 2: Innovation Idea Report, written assignment (40%)

Part 3: Group Presentation (40%)

Schedule

Tuesday, April 14, 2026
13:30 – 17:00

Sustainability Management in Real Estate
Mareen Walus

Wednesday, April 15, 2026
9:00 – 17:00

Problem Scouting and Team Building, Design Thinking and Honda
Prof. Dr. Søren Salomo

Friday, April 17, 2026
09:30 – 17:00

Technology and Innovation
Prof. Dr. Søren Salomo

Saturday, April 18, 2026
09:30 – 17:00

Technology and Innovation
Prof. Dr. Søren Salomo

Monday, April 20, 2026
13:30 – 17:00

DIN 276
Prof. Dr. Nicole Riediger

Wednesday, April 22, 2026
9:00 – 17:00

Workshop
Charleen von Kolpinski

Thursday, April 23, 2026
12:45 – 17:00

Intermediate Excel
Maximilian Evers

Monday, April 27, 2026
9:30 – 12:30

Data Driven Decision Making and Operations
Prof. Dr. Thomas Volling

Tuesday, April 28, 2026
13:30 – 16:00

Business Plan
Prof. Dr. Antje Venjakob

Wednesday, April 29, 2026
9:00 – 12:30

Managerial Accounting
Christoph Groth-Tonberge

Thursday, April 30, 2026
9:00 – 12:30

Managerial Accounting
Christoph Groth-Tonberge

Thursday, April 30, 2026
12:30 – 17:00

Sustainability Management in Real Estate
Mareen Walus

Monday, May 4, 2026
9:00 – 12:30

Data Driven Decision Making and Operations
Prof. Dr. Thomas Volling

Monday, May 11, 2026
9:00 – 12:30

Data Driven Decision Making and Operations
Prof. Dr. Thomas Volling

Tuesday, May 12, 2026
14:00 – 17:30

Consultations
Dr. Charleen von Kolpinski

Wednesday, May 13, 2026
09:30 -12:45

Decision Psychology
Dr. Felix Grün

Monday, May 18, 2026
10:00 – 13:30

Data Driven Decision Making and Operations
Prof. Dr. Thomas Volling

Friday, May 22, 2026
9:30 – 10:30

EXAM 1: Quiz, open book, no AI

Friday, May 22, 2026
10:30 – 17:00

Innovation Management
Dr. Birgit Peña Häufler

Saturday, May 23, 2026
9:30 – 17:00

Innovation Management
Dr. Birgit Peña Häufler

Tuesday, May 26, 2026

EXAM 2: Submission - Written Assignment

(Before 8:00)

Friday, May 29, 2026
09:30 – 17:00

Communication and Leadership
Bettina Brockmann

Saturday, May 30, 2026
09:30 – 17:00

Communication and Leadership
Bettina Brockmann

Tuesday, June 2, 2026
13:30 – 17:00

Strategy and Business
Dr. Antje Venjakob

Tuesday, June 16, 2026
13:30 – 17:00

Consultations
Dr. Antje Venjakob

Tuesday, June 30, 2026
13:30 – 17:00

Consultations
Dr. Antje Venjakob

Tuesday, July 7, 2026
9:30 – 12:30

EXAM 3: Business Plan Presentation
Dr. Antje Venjakob

Literature

Prof. Dr. Dodo zu Knyphausen-Aufseß

- BASIC DEFINITIONS AND INTRODUCTORY OVERVIEW
- Strategy, Technology and Innovation
- Strategic Leadership and Global Management

Prof. Dr. Søren Salomo & Dr. Birgit Peña

- INNOVATION MANAGEMENT FUNDAMENTALS
 - o The core concept: innovations
 - o Initiating innovations
- TOWARDS A VALUE PROPOSITION
 - o Towards concrete innovations
 - o Building a business idea
 - o Towards a competitive value proposition
 - o Towards a customer centric value proposition
- TECHNOLOGY & INNOVATION MANAGEMENT
 - o Customers as Sources of Innovation
 - o Technologies supporting the business
 - o Innovating in a firm – opposition and structure
 - o The human side of innovation
- PROJECT MANAGEMENT
 - o Managing a project
 - o Organizing for projects
 - o Project definition and planning
 - o Leadership in Projects

Prof. Dr. Thomas Volling & Kristian Bänsch

- Quantitative Methods for a Project Plan
 - o Challenges and problems in managing projects
 - o Methods for multi-criteria decision making
 - o Selection and implementation of a MADM procedure
 - o Multi-attribute decision making – AHP
 - o Project scheduling
 - o Project planning
 - o Management of project risks

Bettina Brockmann

- Mngmt Communication
 - Small Group Communication and Social Construction
 - Group Dynamics
 - Social Construction
 - Assignment: Argument vs. Dialogue (students bring notes: breakout room 2 - 11:00-12:00)
 - Tuckman's stages of group development
 - Designing Dialogue Processes and Events
 - Designing Dialogue Processes and Event
 - Choice & Sample Dialogue Event Design
 - Cognitive Dissonance Theory
 - Facilitating Dialogue
 - Dialogue Facilitation Skills
 - Communication Training
 - Pitch Training

Karina Cagarmann & Charleen von Kolpinski

- Market Potentials & Channel Approaches
 - Design Thinking Group Work
 - Theory & Content – Business Plan
 - Cost & Competition Approaches

Module Lecture Series (6 ECTS)

Prof. Julian Wékel
Academic Director

Building Sustainability – Management Methods for
Energy Efficiency MBA

www.master-in-energy.com



Aims and Scope

The aim of the lecture series is to expand the regular study program, with its core orientation on sustainability in building development, by providing broader aspects of sustainable urban and regional development. Through these special lectures, a discourse on the individual dimensions of sustainability in economics and ecology as well as social and cultural aspects will be encouraged.

Schedule

Tuesday, April 21, 2026 09:30 – 12:30	False dichotomies, thick edges and unexpected feedback loops Dr.-Ing. Katleen De Flander
Monday, April 27, 2026 13:30 – 17:00	Aspects of Sustainable Urban Development on a Communal Level Dr. Timo Munzinger
Tuesday, April 28, 2026 09:30 – 12:30	Circular Cities - Land is The Key Dipl.-Ing. Stephan Reiß-Schmidt
Monday, May 4, 2026 14:45 – 17:30	Excursion to The House of Statistics & Workshop at Haus der Materialisierung Elena Sofel Stranges
Wednesday, May 6, 2026 09:00 – 13:00	Process Matters! Real World Laboratories for New Standards in (Re)Construction Dr. Nina Pawlicki
Tuesday, May 12, 2026 09:30 – 12:30	Integrated Development as a Prerequisite for Sustainability and Climate Protection in Cities and Regions Prof. Hilmar von Lojewski
Tuesday, May 19, 2026 10:00 – 13:30	Charting a Path to a Regenerative Built Environment: A Roadmap for Climate Positivity and Social Equity Prof. Dr. Philipp Misselwitz

- Thursday, June 11, 2026
Time TBC
- Energy Transition in Denmark: Market Design, Flexibility, and Sector Integration**
Prof. Jens Weibezahn
- Friday, June 18, 2026
13:30 – 17:00
- Scientific Writing for your thesis**
Maike Kalz
- Tuesday, June 23, 2026
09:30 – 12:30
- Environmental Analysis with Design Space Construction**
Marco Mondello
- Thursday, June 25, 2026
09:00 – 17:00
- The ecological transformation of our cities**
Dr. Ekhart Hahn
- Tuesday, June 30, 2026
09:00 – 12:30
- Challenges of Sustainable Urban Development and Planning Culture**
Prof. Julian Wékel

Module Smart Buildings and the Integration of Renewable Energies (6 ECTS)

Dipl.-Ing. Daniel Freund
Research Associate
Distributed Artificial Intelligence Labor
Technische Universität Berlin



daniel.freund@posteo.de

Aims and Scope

After completing this module, students should have a deep understanding of the fundamentals of flexible and intelligent energy management in modern residential environments. Within the context of comprehensive energy balances, they will be familiar with detailed aspects such as building configuration, user behavior, monitoring, control/automation, and decentralized electricity generation. They will be able to explain the relationship between smart buildings and external factors such as energy generation, supply, as well as legal and economic conditions for construction and operation. Additionally, students will be able to determine and evaluate the impacts of smart building design, identify alternatives for energy efficiency, and compare them with other measures.

Schedule

Monday, June 1, 2026 09:00 – 17:00	Lecture 1 An Introduction to Smart Buildings and the Bigger Picture Dipl.-Ing. Daniel Freund
Monday, June 8, 2026 09:00 – 17:00	Lecture 2 Smart Buildings Electricity Storage Dipl.-Ing. Daniel Freund
Monday, June 15, 2026 09:00 – 17:00	Lecture 3 Electricity Storage Dipl.-Ing. Daniel Freund
Monday, June 22, 2026 09:00 – 17:00	Lecture 4 Smart HVAC Systems Dipl.-Ing. Daniel Freund
Monday, June 29, 2026 09:00 – 17:00	Lecture 5 Consultation Dipl.-Ing. Daniel Freund
Thursday, July 9, 2026 09:00 – 12:30	EXAM: Group Presentations Dipl.-Ing. Daniel Freund

Module Energy Performance of Buildings (6 ECTS)

Dr. Farshad Nasrollahi

Lecturer - Berlin Institute of Technology
Energy Consultants for Residential & Non-Residential Buildings
(Energieberater für WG und NWG)



Aims and Scope

During this module, students are expected to achieve specific qualification objectives to deepen their competencies in the energy performance assessment of buildings. The following goals are emphasized: Throughout the module, students aim to acquire comprehensive foundational knowledge in the areas of energy generation, distribution, storage, and utilization in buildings. This serves as the basis for understanding complex relationships in energy performance assessment. Another objective is the application of simple methods for energy performance assessment using practical examples. Here, students should be able to analyze and optimize the energy consumption of both existing and new buildings. Additionally, students should understand and apply the interactions between building envelopes and building technology in practice. This will enable them to reduce the energy consumption of buildings through targeted optimizations.

Schedule

Wednesday, May 27, 2026 09:00 – 17:00	Energy Performance Indicators & Climate Parameters
Wednesday, June 3, 2026 09:00 – 17:00	Thermal Comfort, Building Energy Simulation & Introduction to DesignBuilder
Wednesday, June 17, 2026 09:00 – 17:00	Introduction to DesignBuilder & Quiz
Wednesday, June 24, 2026 09:00 – 17:00	Simulation with DesignBuilder
Wednesday, July 1, 2026 09:00 – 17:00	Applying DesignBuilder in Building Analysis & Interim Review
Wednesday, July 15, 2026 09:00 – 12:30	EXAM: Final Presentation
Wednesday, July 17, 2026	EXAM: Report Submission

Literature

- [1] Robert L. Jaffe and Washington Taylor. The Physics of Energy. Cambridge University Press, 2018.
- [2] P. Zweifel et al. Energy Economics. Springer Texts in Business and Economics, Springer 2017.
- [3] Y. Demirel. Energy. Springer 2012.
- [4] W Shepherd and D W Shepherd. Energy Studies. Imperial College Press, 2008.
- [5] Volker Quaschnig. Understanding Renewable Energy Systems. Earthscan, 2005.

Graduation Ceremony MBA Building Sustainability 2026

3rd of July 2026
Details to be announced

