



Technische
Universität
Braunschweig

Faculty of Architecture,
Civil Engineering and
Environmental Sciences



Foto: Stefan Neudecker

DEPARTMENT OF ARCHITECTURE

EXCHANGE STUDENT GUIDE

WELCOME

We would like to welcome you to the Department of Architecture at the University of Technology Braunschweig.

Studying abroad is an exciting experience that will benefit you throughout your whole life. You will become acquainted with a different academic tradition, you will meet students from all over the world and you will encounter a variety of new ideas and perspectives.

This guide is designed to give you an idea of what it is like to study at the School of Architecture of the TU Braunschweig. It contains a description of the core categories, all of the institutes as well as useful information for your studies throughout your exchange period. If you have further questions please contact us at the address stated on the back of the brochure.

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BRAUNSCHWEIG

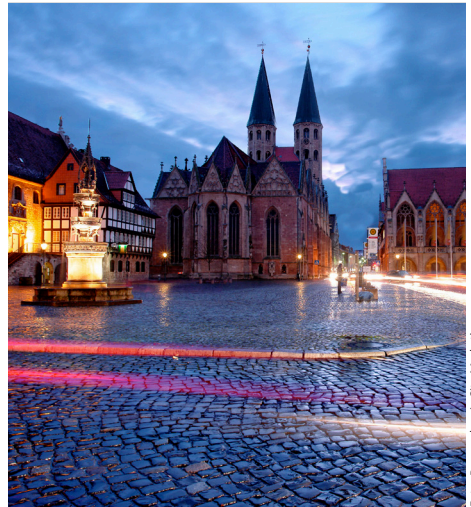
More than 20,000 students live in the historic and vibrant university city of Braunschweig. They study, work and research at Technische Universität and University of Art, shaping life in the Oker City.

Only a short walk will take you to Braunschweig's inner city. Against the backdrop of its historic city centre, you will find everything you're looking for in a major city: cinemas, restaurants, museums, shopping, night clubs, pubs, cafés, a theatre and many things besides. And the Braunschweig Lion, the city's landmark since medieval times, is ever-present.

Many students meet in the parks that are located all over the city. They are particularly popular for barbecuing and playing football. You can jog and go for a walk in the Riddagshausen nature reserve, which begins in the city itself. The river Oker, which flows right around the city, is ideal for rafting and canoeing. Going to Harz National Park to ski is just a short trip away. The Weserbergland as well as the Südheide are popular destinations for day trips. Many students take advantage of the central location of Braunschweig to visit Berlin, Hamburg, Leipzig or Cologne for the weekend.

Braunschweig has an excellent infrastructure. On foot, by bicycle and by public transportation you can get anywhere quickly. As a student you receive a semester ticket, which enables you to travel free of charge by bus, tram, and local

trains in Braunschweig and the whole of the federal state of Lower Saxony. It is also possible to get everywhere by car. There is generous parking on campus.



Altstadtmarkt Braunschweig

BRAUNSCHWEIG FIGURES

State: Lower Saxony

Population: 248,867

Founded: 9th century

TU BRAUNSCHWEIG

Technische Universität Braunschweig Carolo-Wilhelmina is the academic focal point of Braunschweig, the City of Science, which in turn is at the heart of one of Europe's most active research regions.

Approximately 19,500 students and 3,500 staff and faculty members make up our community. Our campus is the ideal size for a university: our vast spectrum of teaching and research activities enjoy the use of state-of-the-art facilities while offering an intimate atmosphere at the same time. The Central Campus is located on the banks of the Oker River, walking distance from Braunschweig's city centre. Our core disciplines include a comprehensive engineering branch and a strong natural sciences branch, closely linked with business sciences, social sciences, humanities and educational sciences. Our strategic research fields are mobility, infections and active agents, city of the future and metrology, which are interlinked through numerous overarching topics. Our extensive range of engineering courses is unique among the universities of Northern Germany. The name Carolo-Wilhelmina stems from the founding fathers of Technische Universität Braunschweig, Dukes Carl and Wilhelm von Braunschweig-Lüneburg. In 1745, Carl founded the Collegium Carolinum, thus becoming the first in Germany to lay the foundations for a technical university. Among

the first students was mathematician Carl Friedrich Gauß.

„Nec aspera terrent.“

Adversities shall not deter us – this motto of the founders of our university still serves as our maxim.



Foto: Andreas Bormann

Main building of Technische Universität Braunschweig

With its 250,000 residents, Braunschweig is the largest city between Hanover and Berlin, making it the region's focal point, both throughout history and the present.

FACULTY 3

The TU Braunschweig is made up of six Faculties. The Department of Architecture belongs to Faculty 3 along with Civil Engineering and Environmental Sciences.

- 6 Faculties
1. Carl-Friedrich Gauß Department

2. Life Sciences

3. Architecture, Civil Engineering and Environmental Sciences

Department of Architecture	
Architecture	B.Sc. / M.Sc.

Department of Building and Environment	
Civil Engineering	B.Sc. / M.Sc.
Industrial Engineering	B.Sc. / M.Sc.
Environmental Engineering	B.Sc. / M.Sc.
Environmental Geology	B.Sc. / M.Sc.
Computational Sciences in Engineering	M.Sc.
Pro Water	M.Sc.

4. Mechanical Engineering
5. Electrical Engineering, Information Technology, Physics
6. Humanities and Educational Sciences

DEPARTMENT OF ARCHITECTURE

The Department of Architecture at TU Braunschweig is one of the most renowned Architecture departments in Germany. Among architects in Germany, the “Braunschweig School” is widely known.

The focus in the Bachelor’s programmes is on teaching design skills. Developing students’ intellectual skills for critical analysis, assessment and comparison is given as much importance as enabling them to discuss basic artistic-creative issues. We understand design to mean the advanced and project-specific application or integration of all subjects relating to theory, history, technical construction and illustration in Architecture.

CORE DISCIPLINES

Architecture training at Braunschweig centres on artistic and design-related aspects. The design process for solving complex problems involves more than simple spatial design. Specialist knowledge from different disciplines accompanies the training. Design training starts in stage one of the degree course (Grundstudium), and thus forms the fundamental link for the acquisition of knowledge from the different subject areas, which can be divided into five groups:

- A History and Theory
- B Illustration and Design
- C Design and Construction
- D Urban and Landscape Design
- E Architectural Design

These five groups are represented by 16 subject areas and professors at 15 institutes. With such a variety of institutes and subject areas, diverse fields of work can be covered in both teaching and research. The design-related professorships include a broad spectrum of disciplines: Architectural design, civil engineering, arts, urban and landscape planning, development and settlement planning.

During stage one (Grundstudium) of the degree, the necessary basis is provided by set compulsory subjects; in stage two (Hauptstudium), every student can choose his or her own specialisms within a set structure. This ensures that all graduates are well prepared for a career as an architect. Students are encouraged to take courses offered by other university departments, e.g. in economics or the social sciences, the humanities, or the natural and engineering sciences. This is seen as promoting interdisciplinary work and the ability to work as part of a team.

INSTITUTES CORE CATEGORY A+B

A – HISTORY AND THEORY (KULTURELLE/HIST. KENNTNISSE)

INSTITUTE OF BUILDING HISTORY
INSTITUT FÜR BAUGESCHICHTE
PROF. ULRIKE FAUERBACH
Pockelsstraße 4,
38106 Braunschweig
tel: +49 531 391 2524
baugeschichte@tu-bs.de
www.tu-braunschweig.de/baugeschichte

INSTITUTE OF HISTORY AND THEORY OF ARCHITECTURE AND THE CITY
INSTITUT FÜR GESCHICHTE UND THEORIE DER ARCHITEKTUR UND STADT
PROF. DR. TATJANA SCHNEIDER
Pockelsstraße 4
38106 Braunschweig,
tel: +49 531 391 2347
gtas@tu-bs.de
www.gtas-braunschweig.de

B – ILLUSTRATION AND DESIGN (DARSTELLEN UND GESTALTEN)

INSTITUTE FOR ARCHITECTURE-RELATED ART
INSTITUT FÜR ARCHITEKTURBEZOGENE KUNST
PROF. FOLKE KÖBBERLING
Bevenroder Straße 80
38108 Braunschweig
tel: +49 531 23511 50
iak@tu-bs.de
www.iak-tu-bs.de

INSTITUTE OF MEDIA AND DESIGN
INSTITUT FÜR MEDIALES ENTWERFEN
PROF. MATTHIAS KARCH
Zimmerstraße 24
38106 Braunschweig
tel: +49 531 391 3564
imd@tu-bs.de
www.imd.tu-bs.de

INSTITUTES CORE CATEGORY C

C – DESIGN AND CONSTRUCTION (ENTWERFEN UND KONSTRUIEREN)

INSTITUTE OF TECHNOLOGY AND DESIGN
INSTITUT FÜR BAUKONSTRUKTION
PROF. HELGA BLOCKSDORF
Schleinitzstraße 21b
38106 Braunschweig,
tel: +49 531 391 5922
baukonstruktion@tu-bs.de
www.tu-braunschweig.de/baukonstruktion

INSTITUTE FOR BUILDING CLIMATOLOGY AND ENERGY OF ARCHITECTURE
INSTITUT FÜR BAUKLIMATIK UND ENERGIE DER ARCHITEKTUR
PROF. ELISABETH ENDRES
Mühlenpfordstraße 23
38106 Braunschweig
tel: +49 531 391 3555
igs@tu-braunschweig.de
www.tu-braunschweig.de/igs

INSTITUT OF CONSTRUCTION DESIGN, INDUSTRIAL AND HEALTH CARE BUILDING
INSTITUT FÜR KONSTRUKTIVES ENTWERFEN, INDUSTRIE- UND GESUNDHEITSBAU
PROF. CARSTEN ROTH
Pockelsstr. 3, 7. OG
38106 Braunschweig,
tel: +49 531 391 2544
iike@tu-bs.de
www.tu-braunschweig.de/iike

INSTITUTE OF STRUCTURAL DESIGN
INSTITUT FÜR TRAGWERKSENTWURF
PROF. DR.-ING. HARALD KLOFT & JUN.-PROF. DR. NORMAN HACK
Pockelsstraße 4
38106 Braunschweig
tel: +49 531 391 3571
ite@tu-bs.de
www.tu-braunschweig.de/ite

INSTITUTES CORE CATEGORY D

D – URBAN AND LANDSCAPE DESIGN (STADT UND LANDSCHAFT)

INSTITUTE OF SUSTAINABLE URBANISM
INSTITUT FÜR NACHHALTIGEN STÄDTEBAU
PROF. DR.-ING. VANESSA M. CARLOW
Pockelsstr. 3, 12. OG
38106 Braunschweig,
tel: +49 531 391 3537
isu@tu-bs.de
www.sustainableurbanism.de

INSTITUTE OF URBAN DESIGN
INSTITUT FÜR STÄDTEBAU UND ENTWURFSMETHODIK
PROF. UWE BREDERLAU
Pockelsstr. 3, 13. OG
38106 Braunschweig,
tel: +49 531 391 3538
ise@tu-bs.de
www.tu-braunschweig-ise.de

INSTITUTE OF LANDSCAPE ARCHITECTURE
INSTITUT FÜR LANDSCHAFTSARCHITEKTUR
PROF. GABRIELE G. KIEFER
Pockelsstraße 3, 4. OG
38106 Braunschweig,
tel: +49 531 391 2365
ila@tu-bs.de

INSTITUTES CORE CATEGORY E

E – ARCHITECTURAL DESIGN (ENTWERFEN: GEBÄUDE)

INSTITUTE OF BUILDING DESIGN
INSTITUT FÜR ENTWERFEN UND BAUGESTALTUNG
PROF. DAN SCHÜRCH
Pockelsstraße 3, 14. OG
38106 Braunschweig
tel: +49 531 391 2523
ieb@tu-braunschweig.de
www.ieb-bs.de

INSTITUTE OF DESIGN AND ARCHITECTURAL STRATEGIES
INSTITUT FÜR ENTWERFEN UND GEBÄUDELEHRE
PROF. ALMUT GRÜNTUCH-ERNST
Pockelsstraße 3, 15. OG
38106 Braunschweig
tel: +49 531 391 94400
idas@tu-braunschweig.de
www.idas.tu-bs.de

INSTITUTE FOR EXPERIMENTAL ARCHITECTURE
INSTITUT FÜR EXPERIMENTELLES ENTWERFEN
PROF. BERTHOLD PENKHUES
Pockelsstraße 4
38106 Braunschweig,
tel: +49 531 391 2515
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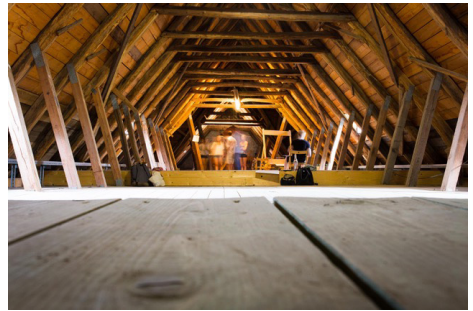
INSTITUTE OF ARCHITECTURAL DESIGN
INSTITUT FÜR ENTWERFEN UND RAUMKOMPOSITIONEN
PROF. VOLKER STAAB
Pockelsstr. 3, 11. OG
38106 Braunschweig,
tel: +49 531 391 3588
iad@tu-bs.de
www.iad-bs.de

IB | INSTITUTE OF BUILDING HISTORY

PROF. ULRIKE FAUERBACH

The History of Architecture and Building Construction provides us with an immense repository of knowledge – the current transformations of our societies can be assessed against the background of millennia. We can observe how stone and brick evolved as building materials, how humans learned to mix concrete and lost the knowledge in socio-political turmoil, how they developed complex timber constructions and transformed this knowledge when iron and steel became mass-produced. We may be overwhelmed by what digitization means for our lives, yet the invention of, e.g., letterpress changed the thinking of mankind and with it architectural design to a similar extent.

These transformations are materialized in historic architecture; we can read buildings like books. They are documents of how people lived, where they were governed from, how they fought wars, how they practised their religious beliefs, etc. The true value of historic monuments lies not in beauty or their potential to convey a feeling of identity. They are a source in their own right, which can reveal all aspects of human life, a source we need to perceive and to preserve. Students will learn how to analyse historic architecture in its cultural and socio-topographical context by surveying and researching buildings on site, as well as by studying written and visual sources. This will enable



them to help preserve built heritage and to transfer their analysis into the architectonic discourse.

The Institute of Building History (IB) researches diverse fields like Pharaonic and ancient architecture, the renaissance, the Jewish built heritage and the 20th-century-era of the Braunschweiger Schule.

It offers lectures that overlook building history from the beginning until the 20th century, hands-on training in building archaeology– and surveying as well as in-depth seminars on a range of topics.

GTAS | INSTITUTE OF HISTORY AND THEORY OF ARCHITECTURE

PROF. DR. TATJANA SCHNEIDER

In the face of epochal urban transformations and increasing socio-spatial inequalities in many parts of the world, the institute is dedicated to the research of the social, economic and political parameters within and through which architectures and cities are made and of the tools and methodologies that allow citizens to intervene transformatively in the production of space.

The Institute for History and Theory of Architecture and the City (gtas) investigates how space is produced, by whom and whom for. When architecture is often concerned with the object beautiful only, we are interested in unraveling, disentangling and explicating the interdependencies between architecture and other forces by developing ways and means that make such forces visible and negotiable. Our work aims to make tangible what often remains hidden, is concealed or otherwise obscured in order to develop tools and instruments that can critique and ultimately change dominant, profit-driven systems of production. The following themes reflect those interests and concerns.

- Spatial Agency
- Housing Otherwise
- Urban Education Live / Researching Alternative Urban Methods
- The 'Social Turn'



IMD | INSTITUTE OF MEDIA AND DESIGN

PROF. MATTHIAS KARCH

The Media Space of Architecture: Against a background of the on-going mediatisation of our environment, architectural design is transforming itself from the advance plan to the adaptable information matrix.

Urban space, as well as available information, are becoming dynamic and at times contradictory, and are changing over the very course of the design process. Moreover, locations where medial-virtual information (Facebook, Twitter etc.) fuses with the realphysical scene are taking on new meaning. This is why one of the areas of concentration for teaching and research at the Institute of Media and Design is now the exploration of events in the context of the Arabellion.

The demonstrations and occupations in Cairo, Tunis, Istanbul and other cities are transforming the central squares of each place into spontaneous communal areas of interaction which are organised according to specific rules, yet represent the result of a process. In our diagrammatically structured research projects and the subsequently developed designs, we examine the question how the characteristics of the collision of dramatically different people, the intensification of activities and actors, the openness and accessibility of a space and the intoxicating nature of the unplanned can be conveyed via architecture. For the design process, this means developing process-based control mechanisms that cannot be seen as mediators of established entities, but rather as independent actors which enable acts of architectural design. Topics to be investigated include both, the concrete situation and concrete space, as well as the medially transmitted space, the space of information which has become inextricably bound to architecture and cities. The parametric tools for this spatial production are the protagonists of dialectics between the physical and medially transmitted scene.



IAK | INSTITUTE FOR ARCHITECTURE-RELATED ART

PROF. FOLKE KÖBBERLING

The teaching field of “Forms” includes objects, sculpture, space and performance. The topic centres on experimental, conceptual sculpting. In aesthetics, experimenting calls for an alternative consciousness. It makes me think about the existence of the material, an interactive tension between inner structure and the outer experience of form, about the filling up of space. It allows us to achieve exciting, unpredictable results. All the same, experiments have no purpose when they do not lead to a concrete idea. Having ideas is important. Not having them is, at first, not so bad, but in the long term this can become unsatisfying. Form has to do with teaching structure and space. It is neither the material alone, nor the associated techniques that are essential, but rather the interplay and tension that arise between the material, the technology, the various media, the idea and reality of the concrete place. The processes, changes and confrontation with new visual and mental impulses play a central role in teaching this subject. It is important to create an atmosphere of mutual testing and questioning while nonetheless ensuring that no one’s feelings are hurt. The programme will focus on the following:

1. Seeing and commenting on the structure of culture is one of the most important functions of artistic practice. Social, spatial and temporal

references will be linked (the contextual aspect).

2. Students will learn to juxtapose reality with their own semiotic systems and to transform these system (the poetic aspect).

3. Balancing documentation and presentation of the students’ own works.

4. The conceptual quality of work (the communicative role of the idea).

5. The creative quality of the connection between the private and the public realms.

6. Practical application of both new and traditional materials and techniques.

7. Teamwork.



KON | INSTITUTE OF TECHNOLOGY AND DESIGN

PROF. HELGA BLOCKSDORF

Design and construction are usually regarded as separate disciplines. In terms of conveying their functions, this distinction might, to a certain degree, appear to be useful. However, in our opinion, there must already be a synthesis between the two disciplines at the design stage of a building project. Therefore, when we work, this interaction between construction and design is at the focal point of our considerations, as every thought about architecture must also address its relationship with the object of construction. We are not interested in construction per se, but in the relationship between material, structural disposition and aesthetic effect. We are always fascinated by the structural problems when we expect to find an essential part of the expression of a building. In our teaching, the question we investigate is the extent to which design results from the consequential

implementation of constructional laws and how large is the scope of individual discretion as the basis for the form-finding process in design and construction. In our lectures, the principles of different construction methods, building components and building elements are explained, and their uses are analysed by way of practical examples. Monographic lectures of contemporary architects and their buildings serve to introduce the current discourse on constructional concepts and specific design strategies.

It takes an understanding of the basic principles of architecture to discover an architect's scope for creativity. Thus, the constructional detail becomes the architect's sphere of activity; it embodies the creative consequence of design. We think that if arbitrariness is dismissed, architectural quality can arise.



IIKE | INSTITUT OF CONSTRUCTION DESIGN, INDUSTRIAL AND HEALTH CARE BUILDING

PROF. CARSTEN ROTH

As one of three institutes at German architecture faculties that engage in industrial construction, the Institute of Industrial Building and Constructive Design (IIKE) headed by university professor Mag. Arch. M. Arch. Carsten Roth holds core expertise in urban, typological and structural key aspects of industrial building and industrial site development.

The institute's focus is on exploring and implementing innovative methods, technologies and materials in industrial building and the prefabrication in building construction. The transfer of highly efficient planning and construction methods utilized in industrial building to health care buildings is another key field of research. For both research and teaching, the institute maintains long-standing co-operations with partners in the industry. Research partnerships in the fields of plant design, city planning, construction business management and building services engineering enable the IIKE to develop and execute various research projects based on interdisciplinary collaboration.



IBEA | INSTITUTE FOR BUILDING CLIMATOLOGY AND ENERGY OF ARCHITECTURE

PROF. ELISABETH ENDRES

The teaching and research focus of the “Institute for Building Climatology and Energy of Architecture” is the interface of passive and active building components in architecture. The aspects of building physics, construction materials as well as technical and energy supply systems. The aim of the applied building research is to develop strategies for districts and buildings that create sustainable living space with robust construction methods and simple, low-tech systems. The focus is on the simplicity of the systems through a holistic view of architectural design.

Increasing requirements on building performance for the energy efficiency and the development of methods brings a high complexity in the processes of planning and construction as well as for the users in operation. Therefore the research area of the institute analyses the development of general solutions in architecture and urban planning that need to be carried out in order to achieve the necessary climate targets by implementation of recyclable constructions and the reducing of technical complexity. In addition to the physical and technical research questions, new methods are available due to the development level of building materials and digitalization. Those digital methods in calculation and material production have a high potential in the context of sustainable building construction. However, these methods are not

applicable in the building sector at the current process. Benefits resulting from these developments have to be explored, the standards have to be redefined in parts and instruments which contribute to a simplification have to be integrated.

Research questions are explored through the use of digital tools as well as through 1:1 experiments in the institute’s laboratory.



Traditional & Postmodern Perspectives

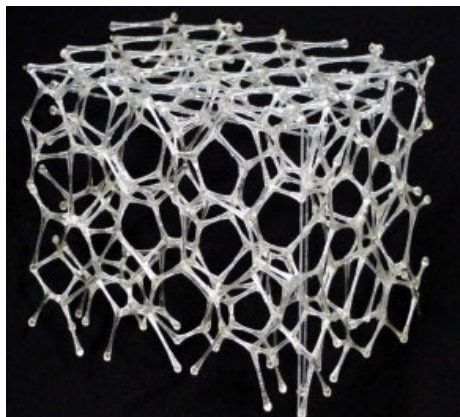


ITE | INSTITUTE OF STRUCTURAL DESIGN

PROF. DR.-ING. HARALD KLOFT & JUN.-PROF. DR. NORMAN HACK

In contrast to conventional structural engineering studies, which comprise the modelling and calculation of structural systems, the main educational objective of the Institute for Structural Design (ITE) is to impart the conception and design of structures. For this, a fundamental knowledge of loads and stresses is just as important as an understanding of the operation modes of basic structural systems. The main difference in comparison to engineering studies is the targeted implementation and integration of this knowledge in the design of structures. This neither implies the mere dimensioning of building components nor the design of structures according to engineering principles. At the ITE, the conception of building structures is understood as an integral part of the architectural design process, an understanding which allows to develop structural systems for any kind of architecture. Regarding the education of architects, a paradigm change has occurred: the focus has shifted from conventional structural engineering towards structural design. As Harald Egger, former director of the Institute of Structural Design at the University of Graz, once put it: "Structural design is not a theory grounding, but a knowledge augmenting subject". Gaining knowledge is hence the primary educational goal when it comes to teaching structural design! To achieve this, the conception of structures by the students them-

selves, following an experimental approach and using physical models, is particularly efficient. Whereas illustrative models provide a basic understanding of structural principles, the conception and testing of structural systems, with the help of physical models, help to develop a more intuition-based comprehension. In this context, it is important that designing structures is understood as process, in analogy with the architectural design process. This process-oriented experimental approach brings together fundamental knowledge and intuition.

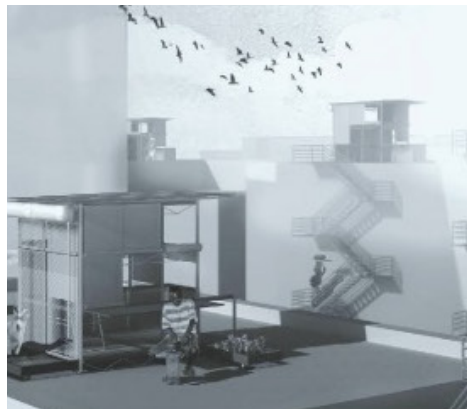


ISU | INSTITUTE OF SUSTAINABLE URBANISM

PROF. DR. VANESSA M. CARLOW

“Sustainable Urbanism.” These two words represent the biggest challenge and at the same time the biggest hope of our time, as cities play a crucial role in confronting the challenges of real sustainability in our collective future. Cities are the biggest consumers of natural and human resources and also one of the most vulnerable places threatened by catastrophes caused by climate change. But cities have always been powerhouses of opportunity, cradles of innovation and emancipation, nodes of power, influence and knowledge, laboratories of creativity and cultural output. In our double role as researchers and designers, we have the means to inscribe global urbanisation with a future. This encompasses learning from urban planning history as well as investigating current global urbanisation trends and combining technical and ecological factors as much as economic and creative ones. Founded by Prof. Dr. Vanessa Miriam Carlow in October 2012, the ISU is part think-tank, part design laboratory, conducting research and promoting scholarship in an international and interdisciplinary context. We seek to deploy our students’ creativity and energy on the real, pressing problems of an urban society and, in the process, build up a long-term design and research platform at the institute. By establishing partnerships with other agents and disciplines, the ISU seeks to provide new insights into urban issues and propose innovati-

ve solutions to them. By collaborating with the city governments of Berlin, Bremen, and Wolfsburg, the HOWOGE housing company, the Potsdam Institute for Climate Impact Research (D E), Penn State University (US), the Blekinge Institute of Technology in Karlskrona (SE), Riseba Riga (LV), and GUTech (OM), we seek to forge new synergies.

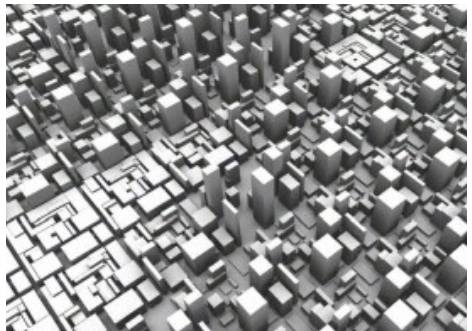


ISE | INSTITUTE OF URBAN DESIGN

PROF. UWE BREDERLAU

The Institute of Urbanism and Design Methods is devoted to researching and testing strategies and concepts for sustainable urban development and to examining current individual topics with respect to the future structure of cities and residential areas. This includes the development of urban agglomerations at the national and international levels. Core topics of the Institute in terms of research and teaching are the contemporary city as well as the shaping and design of urban spaces with the objective of urban and architectural materialisation. For our Institute, working with current societal, political and technological processes of development and transformation are a natural foundation for being able to shape the urban and cultural spheres. In particular, exploring urban processes in the development of cities and residential areas while taking account of sustainable parameters is one of our main priorities. Urban planning is understood as a multilayered, multidimensional and dynamic design process which focuses on the future. To reflect this process in analytical procedures and to create synthesis skills and make decisions using the data provided, we work with both analogue and digital methods and models. Technical infrastructure and the abilities required for this technology come together at the Institute. Generating contemporary urban processes of development

and transformation is the starting point for the design of the metro-politan and cultural spheres in terms of urban and conceptual planning. This means that experimental urban design as a method of developing viable concepts and shaping city spaces plays an important role at the Institute. The speculative element and derivation of hypotheses are also vital. We investigate the translation of clear visions into strategies and concepts. Furthermore, we test the process of transforming conceptual designs into future urban spaces. The Institute of Urbanism and Design Methods stands for urban planning and designs that can be integrated on a scale larger than the individual structure, on urban, regional and international levels.



ILA | INSTITUTE OF LANDSCAPE ARCHITECTURE

PROF. GABRIELE G. KIEFER

Dealing with Landscape and Public Space is an essential aspect for future development of urban societies. Density and efficiency in our cities are decisive factors for the sustainable use of resources. Public space characterises the image and atmosphere of a city just as much as high-rise buildings do. Now, the once-clearly delineated border between city and landscape, buildings and the outdoors, interior and exterior, is becoming increasingly fuzzy. This convergence has led to the creation of hybrid spaces: Landscape is no longer the space surrounding a building. Instead, the built structure has now been subsumed into the landscape.

More than 90 per cent of our environment – landscape and city- consists of free space. Landscape is the foundation of a large-scale involvement with the environment as a whole. Along with issues of urban planning, today's challenges encompass the pressing questions of climate and nature protection, water and resource conservation, flood prevention, infrastructure projects and agriculture. New production processes and techniques are changing our existing cultural landscape. The fact that conversion regions are being cleared (more than 37,000 hectares in Germany by 2020) calls for sustainable concepts for use with future-orientated organisations and spatial structures. In this context, landscape architecture takes on significance as a motor for urban development

and renewal. A city that can create added value from the ability to condense heterogeneous qualities can make a vital contribution to the implementation of people's 'right to the city' (as defined by Henri Lefebvre) in that cultural exchange

and communication become possible for all. Besides imparting knowledge of the 'classical' public space typologies, the ILA focus on the conceptual and formal integration of various aspects of sustainability. Today, urban or architectural projects cannot be successful without integration of public space planning. Therefore, knowledge of landscape architecture and development represent a cornerstone of architectural learning.



IEB | INSTITUTE OF BUILDING DESIGN

PROF. DAN SCHÜRCH

Designing is the continuous repetition of seeing, thinking, creating and discarding. The fact that it is not possible to establish universally valid design methods and rules might at first be difficult to understand. Yet reducing designing to something rational or logically understandable must fail because designing is also always a creative process. The design process is partially deterministic, complex and often unpredictable. On the one hand there are causal decisions, on the other there is uncertainty and playful searching. Many are unaccustomed to this.

How do you approach aspects that can neither be calculated nor proven? Creativity plays a central role in this process. A natural inquisitiveness and a passion to continuously call things into question are essential. The ability to blur one's vision and to abstract as well as note down what one sees is indispensable. Things appear and processes are triggered which, without this visual aid, would have remained undetected. The most important characteristics of sketching is that it is quick and direct. The fuzziness enables one to test one's ideas without knowing the exact solution. This uncertainty is often mistaken for imprecise thinking, but it's absolutely indispensable when designing. In quick sketches, things often appear that give the whole design a new direction. The same is true for simple models. Building working mo-



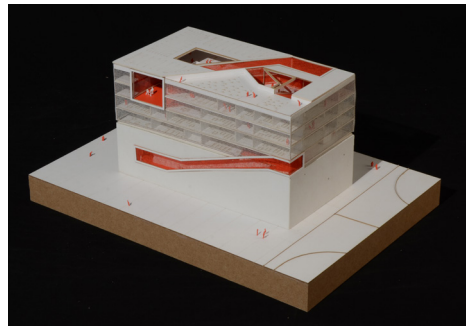
dels is a creative and effective way of moving forward with a design. It also enables a design idea to be quickly checked and made more precise. Digitisation leads to other important tools. They are characterised by continuously growing capacities and quality changes. Setting parameters makes it possible to check and change form and function of various models, albeit only within the defined range of possibilities. Incentives for creative design processes can only be expected to a limited extent. The sensuality and tangibility of the materials is lost and merciless precision collides with the vague blurriness mentioned before. Dealing with complexity might then appear to be easier, but the process of designing certainly is not.

IDAS | INSTITUTE OF INDUSTRIAL DESIGN AND ARCHITECTURAL STRATEGIES

PROF. ALMUT GRÜNTUCH-ERNST

Designing is creative exploration: It is exploring and getting a feel for something, discovering, inventing, testing, developing and making decisions. The basis of studying design is the sharpening of one's individual perceptive experience of the natural and constructed environment – or one's own spatial experience and also of one's ability to feel one's way into other worlds of perception. Beyond the conveyance of knowledge and skills, the course aims to encourage students take a creative approach to methods and rules, to promote creative thinking and action, discover new possibilities and stretch the power of the imagination beyond standards and expectations. Architecture is not an end in itself. It is not a closed system. Designers seek to find a balance between the individual and the collective. On the one hand, there is the collective, conventional, inherited and the familiar; and on the other hand, there is the individual, experimental, idiosyncratic and inquisitive. Time and again, these qualities have to be sounded out, reconciled and combined. Only through an understanding of the collective and through the courage of the individual is it possible to develop strategies for mastering current and future challenges. The openness to question things and to reinterpret design tasks, the curiosity and courage to experiment in the search for alternative functional, formal, technical, artistic and cultural possibilities leads to innovative

and unique solutions. The world we live in is complex and characterised by the uncertainty of dynamic planning parameters. We therefore need to take a critical-creative stance in each design project, to develop a model of thought and to transform this into form and material. The architect's skill lies in the conceptual and spatial shaping of the constructed world. Designing is creative exploration and requires the observation and evaluation of changes in order to develop strategies for mastering current and future challenges.



IAD | INSTITUTE OF ARCHITECTURAL DESIGN

PROF. VOLKER STAAB

The Institute for Architectural Design primarily addresses questions of building design. Our emphasis lies on the search of design strategies that take into account Architecture's complex requirements, utilize contemporary methods and tools of designing, and strive to attain a strong conceptual precision. The incorporation of contextual influences, social issues, as well as the inner logic of the architectural design, therefore, play a significant role. The question of architectural form and its relevance drives our discourse.

Based on these underlying themes, we offer the following design courses:

Two consecutive courses of the bachelor's program aim at developing the student's design toolset and at applying first design concepts in an architectural design project. In addition to the project's reduced spatial program, the building's context plays an important role in the design process.

While design themes are isolated and focused for the lower semesters, the complexity grows in the upper terms. In addition to the integration of other disciplines, such as construction, landscaping, urban planning, or social issues, this also involves design-specific questions of a theoretical nature, which always have the reflection of one's own design process in mind.

Three design formats are offered in the master's program: ME, MEX, MES.



The master's design project ME addresses a complex spatial program in connection to an overriding theoretical topic. This topic can set the focus on structural, spatial and also contextual phenomena. The design methodology is derived from the architectural emphasis.

The master's experimental design project MEX takes topics and phenomena outside the architectural discourse as an opportunity to search for new, unbiased and untested design strategies. It is driven by questions that arise in the process itself and detached from a predefined spatial program.

The newly introduced format MES addresses current issues of sustainability. The goal is to use methods of research and design to critically evaluate building materials regarding their ecological footprint, constructive capabilities, and design qualities.

These three formats have the capacity to address a whole range of theoretical, architectural, constructive and conceptual issues in the coming years, and to examine their influence and relevance in the design process.

IEX | INSTITUTE FOR EXPERIMENTAL ARCHITECTURE

PROF. BERTHOLD PENKHUES

We understand architecture in terms of its genesis, its ability to be experienced directly and its theoretical reception as determined and determining in a variety of ways. Consequently, we do not see design logic as a rigid set of rules, but as a complex system of interactions between technical knowledge, historical associations, social factors, personal experience and aesthetic intentions. When it comes to the concrete formulation of our tasks, we have therefore distanced ourselves from „standard teaching“. Instead, we focus our teaching on the development of individually defined approaches to architectural work. Starting with simple observations and moving on to more detailed analyses of everyday or exceptional phenomena, students establish their own personal position in space and time, and learn to connect it with the functional requirements and aesthetic goals and to find an adequate way of expressing it.



APPLICATION

The **INTERNATIONAL OFFICE** of the TU Braunschweig will assist you with all general questions about the application procedure and general questions about studying at TU Braunschweig.

ERASMUS INSTITUTIONAL COORDINATOR:

Francesco Ducatelli

Phone: +49 (0)531-391 14373

Email: erasmus@tu-bs.de

CONTACT INFORMATION FOR INCOMING EXCHANGE STUDENTS:

Anne-Kathrin Kaiser

Phone: +49 (0)531-391 14375

Email: exchange@tu-bs.de

CONTACT INFORMATION: INTERNATIONAL ARCHITECTURE COORDINATOR

Anna Kostreva

Katharinenstr. 3, 1. floor left, Room 002,
38106 Braunschweig

E-Mail: international-fk3@tu-braunschweig.de

Phone: + 49 (0)531 391-5938

INTERNATIONAL EXCHANGE:

<https://www.tu-braunschweig.de/en/exchange-students>

APPLICATION DEADLINE:

01.06. for the Winter Term and the whole Academic Year

01.12. for the Summer Term

APPLICATIONS FROM CHINA:

01.03. for the Winter Term and the whole Academic Year

01.09. for the Summer Term

LEVELS OF STUDY:

Bachelor, Master, PhD

ONLINE APPLICATION:

<https://www.tu-braunschweig.de/en/exchange-students/application>

COURSE CATALOG:

<https://stdb3.ila.bau.tu-bs.de/stdb/vergabe/angebotsliste.php?lang=en>

ACADEMIC CALENDER:

<https://www.tu-braunschweig.de/en/study-teaching/during-your-studies/term-dates>

SPECIFIC REQUIREMENTS AT THE DEPARTMENT OF ARCHITECTURE:

The department of Architecture recommends a minimum of 2 years of study prior to applying as an exchange student at TU Braunschweig.

PORTFOLIO

All students need to hand in a portfolio (pdf sent to international-fk3@tu-braunschweig.de not bigger than 10 MB) with your application. The portfolio can be a pdf showing the final boards of the last design projects at your home University. The portfolio allows us to advise you on course selection.

DEPARTMENT OF ARCHITECTURE

<https://www.tu-braunschweig.de/arch>

LANGUAGE RECOMMENDATION:

English or German B2 level
(TOEFL, IELTS, etc.)

We do accept applications with English/German B1 level - please state in your motivation letter how you are going to achieve B2 level.

Applications from students with English as mother language are welcome without any German skills.

Visiting students at TU Braunschweig need not pass a language test to be able to register. However, you should be aware that the teaching language is German and that all regular courses will be held in German. Though some lecturers may be willing to discuss your work with you in English on a one-to-one basis, you will need basic proficiency in German to be able to follow lectures, seminars and presentations. All written teaching aids, exams and most of the specialist literature used will also be in German. Having a good knowledge of German will help you not just follow courses, it will also make it easier for you to settle into a new culture, particularly when you first get here. If you lack basic proficiency in German, you will lose time at the start of your visit and may also feel isolated.

The **LANGUAGE CENTRE** at TU Braunschweig offers both preparatory summer courses (from elementary to advanced level) and courses during the semester. To find out about the courses available, please contact the International Office or the University Language Centre directly. We would also strongly advise completing a German language course in your home country before coming here.

<https://www.tu-braunschweig.de/en/learning-german>

ORIENTATION PROGRAM

<https://www.tu-braunschweig.de/en/exchange-students/first-steps>

BUILDING BRIDGES SCOUT PROGRAM

TU Braunschweig has a program to help exchange students get oriented at the university. Please register online:

<https://www.tu-braunschweig.de/abu/studierende/international/scout-programme>

OTHER REQUIREMENTS FOR INCOMING EXCHANGE STUDENTS:

- Student visa might be necessary: <https://www.tu-braunschweig.de/en/exchange-students/preparation>
- Student Service Fee of about 270 Euros for each semester
- German Public Health Insurance or equivalent to one
- Liability Insurance recommended

HOUSING

If you want to rent a room in a student residence, the Mobility Office of the International House can register you with the Studentenwerk. To do this, you must fill out an accommodation application form and send it to us. You will receive this form with your letter of acceptance.

Useful links to apply on the private market:

<https://www.stw-on.de/nc/footer/biete-suche/>

<https://www.wg-gesucht.de/>

<https://www.ebay-kleinanzeigen.de/stadt/braunschweig/>

HOUSING COSTS

Prices range from € 250 to € 350 for a room in a shared apartment and from € 350 to € 500 for a single apartment, plus utility costs (electricity, water, heating).

AIRPORT PICK-UP

Students can arrange pick-up with peer students through the scout program.

CHOOSING COURSES

You should normally choose one design project and one or two theoretical subjects per semester. Design projects are often linked to recommendations for specific theoretical subjects (some of them obligatory). In addition, you can complete some minor assignments, field trips or short-term impromptu design projects during the semester.

The main focus of the degree is on the design project. Completion of this project will touch on all core areas of your degree course. You should therefore take good care in selecting a design project, as you will spend most of your time during the semester on it.

Most of the Design projects are in German language, but all design projects can be supervised in English language.

Many institutes can offer supervision in other languages as well. There are several seminars in English language.

All exchange students (architecture) can choose out of the bachelor and master programme. However, entry to Master Design Projects is only allowed after faculty approval of a portfolio. The current list of courses for a semester is published on the Department of Architecture's website – in mid-October for the winter semester and in mid-March for the summer semester.

The departmental coordinator will advise you on your choice of courses and on how to create your learning agreement.

The course selection process occurs in two steps. Step 1 is a general selection with your application. Step 2 is a specific course selection two weeks before courses begin.

We recommend the following combination of courses - see next page.

STEP 1 - GENERAL SELECTION

EXCHANGE STUDENT COURSE PACKAGE - BACHELOR

1 Bachelor Design Project:	10 ECTS
1-2 seminars:	5/6 ECTS each
1-2 impromptu design project:	1 ECTS each
1 language course:	2-4 ECTS

EXCHANGE STUDENT COURSE PACKAGE - MASTER

1 Master Design Project:	14 ECTS
1-2 seminars:	6 ECTS each
1-2 impromptu design projects:	1 ECTS each
1 language course:	2-4 ECTS

DESIGN PROJECTS:

Bachelor Design Project C – Design and Construction	10 ECTS
Bachelor Design Project D – Urban and Landscape Design	10 ECTS
Bachelor Design Project E – Building Design	10 ECTS
Bachelor/Master Short-Term Design Project	6 ECTS
Bachelor/Master Impromptu Design	1 ECTS
Master Design Project B – Illustration and Design	14 ECTS
Master Design Project C – Design and Construction	14 ECTS
Master Design Project D – Urban and Landscape Design	14 ECTS
Master Design Project E – Architectural Design	14 ECTS
Master Design Project EX – Experimental Design	14 ECTS

SEMINARS:

Seminar A: History and Theory	5/6 ECTS
Seminar B: Illustration and Design	6 ECTS
Seminar C: Design and Construction	6 ECTS
Seminar D: Urban and Landscape Design	6 ECTS
Seminar E: Architectural Design	6 ECTS

„ARCHITEKTURPOSITIONEN“ (guest lecture series)	1 ECTS
LANGUAGE COURSE please refer to the language centre	2-4 ECTS

STEP 2 - SPECIFIC COURSES

2 WEEKS PRIOR SEMESTER START

The specific courses that are offered are only available two weeks prior semester start.

To get an impression of what courses are currently offered you can have a look at this link:
<https://stdb3.ila.bau.tu-bs.de/stdb/vergabe/angebotsliste.php?lang=en>

Since the menu is in German, please find a description on the next page about how to use the site and review the courses.

There will be a **WELCOME MEETING** at the Department of Architecture shortly before the semester starts and we will go through the course selection in detail. It is very important to attend the meeting! You will get further information and consultation on how to apply through the architecture international coordination.



ONLINE COURSE DATABASE

You can choose any course that suits you from the Bachelor's Programme and from the Master's Programme. The departmental coordinator assists you with your choice and the changes in your learning agreement. The actual semester program is posted on the department's homepage two weeks prior semester start.

- In the upper left corner you choose the academic year
- Right below you can sort the course offer according to disciplines or institutions

The screenshot shows the website interface for the Department of Architecture at TU Braunschweig. The header includes the university logo and the text "Technische Universität Braunschweig". The main navigation bar contains links: "Hauptmenü", "Angebote", "Statistik", "LogOut", "Kontakt", "Hilfe", "Online-Forum", "Impressum", and "Deutsch". A red arrow points to the "Deutsch" link with the label "Choose Language".

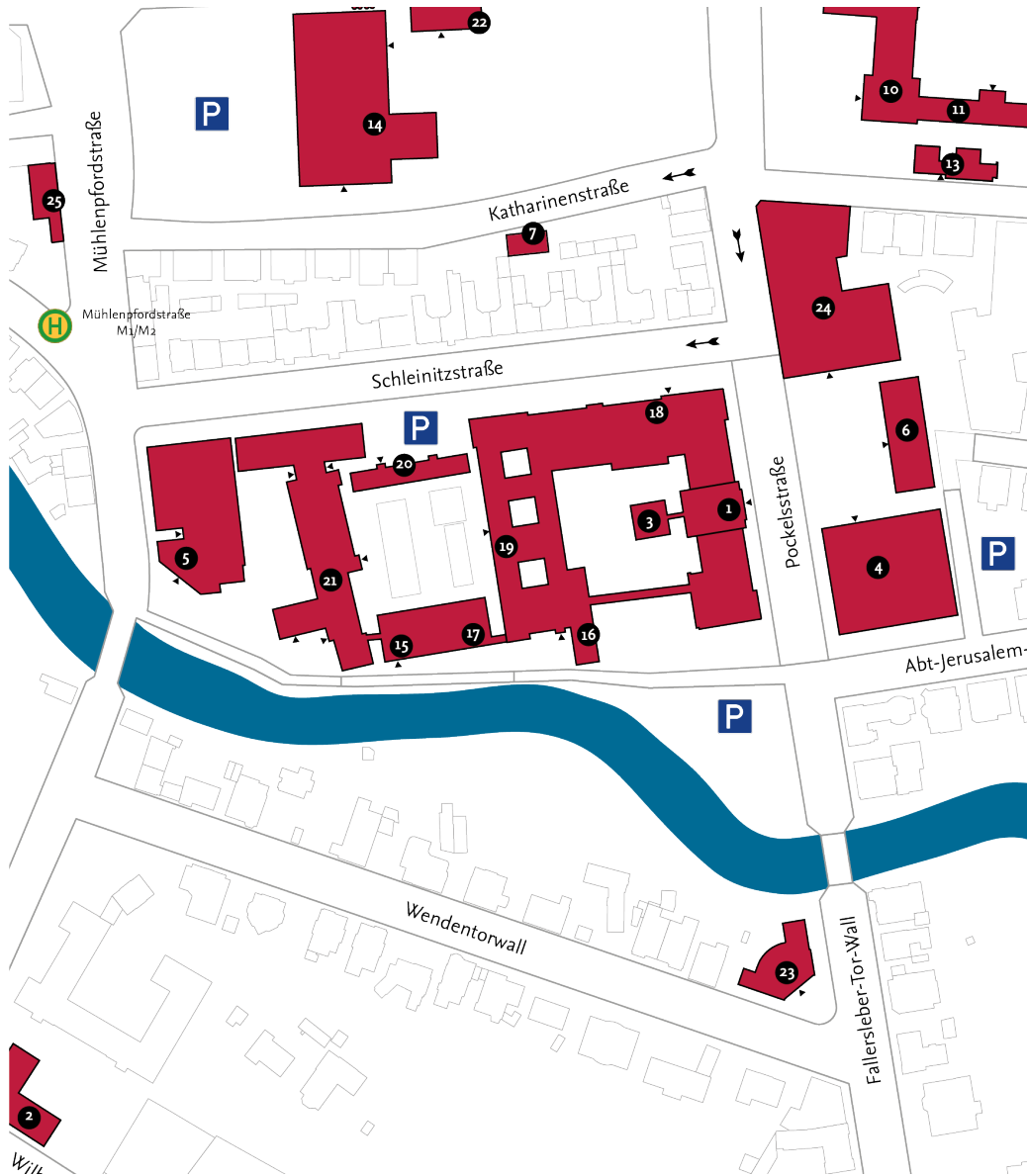
Below the navigation bar, there are several sections with red annotations:

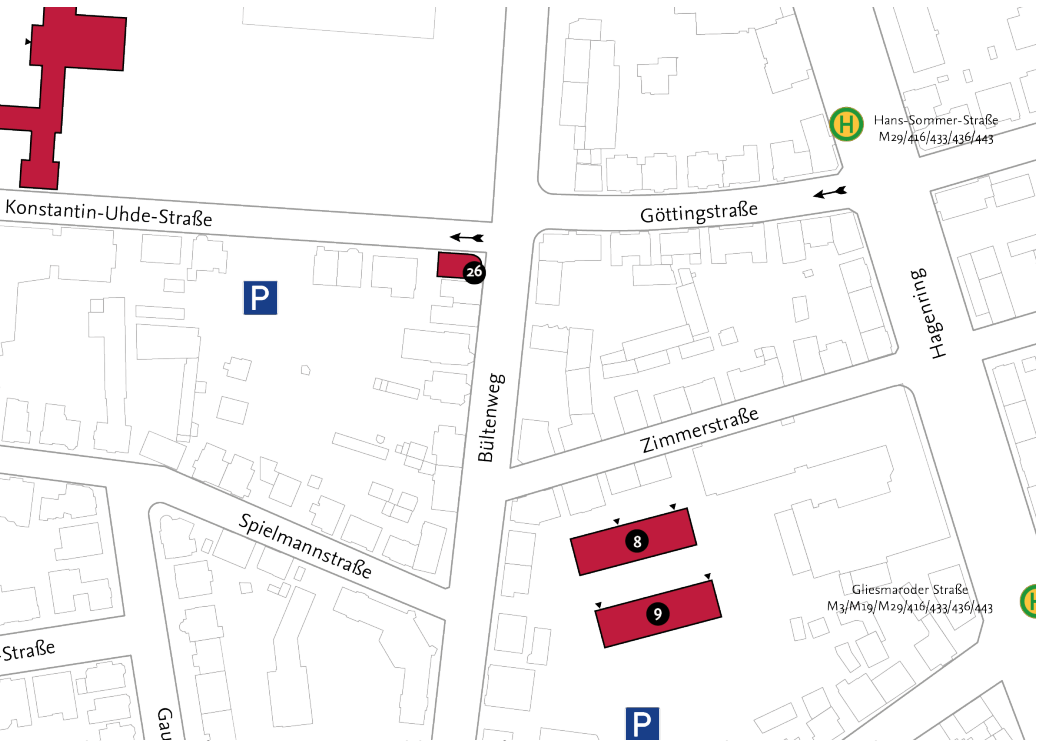
- Seminars**: A red box labeled "Seminars" points to the "Lehrveranstaltung" section.
- Design Projects**: A red box labeled "Design Projects" points to the "Suchoption" section.
- Core Disciplines**: A red box labeled "Core Disciplines" points to the "Studengang" section.
- You can choose from either Bachelor or Master!**: A red box points to the "Institute" dropdown menu.
- Depends on Departure „1 Half“ „2 Half“**: A red box points to the "Semester" section.
- Core Disciplines**: A red box points to the "Suchen" search bar.
- LP = ECTS**: A red box points to the "LP: 6" text.
- Name of Institute**: A red box points to the "Eingetragen von Bernd Schulz" text.
- Description of Course**: A red box points to the "Ressource BS" section.

The main content area displays a list of courses with checkboxes for selection. The "Suchoption" section includes "Alle Fächer", "Bachelor", and "Master/Master". The "Studengang" section includes "Bachelor", "Master Architektur", "Master Sustainable Design", and "Diplom". The "Semester" section includes "1. Hälfte", "2. Hälfte", and "weitere Zeiten". The "Suchen" section includes a search bar labeled "Suchbegriff".

At the bottom, there is a section titled "Darstellen und Gestalten (BS 1 / B4)" with a description: "Pflicht-/Wahlpflicht-/Wahlfächer". Below this, there is a section titled "Architekturbezogene Kunst" with a description: "Ressource BS".

CAMPUS





(1) Altgebäude / Pockelstraße 4

- Institute for Experimental Architecture (Prof. Penkues) 2nd floor
- Institute for Structural Design (Prof. Kloft) 2nd floor
- Institute of Building History (Prof. von Kienlin) 2nd floor
- Institute of History and Theory of Architecture and the City (Prof. Dr. Schneider) between 1st and 2nd floor

(20) Schleinitzstraße 21b

- Institute of Technology and Design (Prof. Kaag)

(5) Archi-Tower / Mühlenpfordstraße 23

- Institute of Building Services and Energy Design (Prof. Fisch) 9th/10th floor

(8) Grotrian / Zimmerstraße 24

- Institute of Media Design (Prof. Karch)

(16) Scheibe / Pockelstraße 3

- Institute of Landscape Architecture (Prof. Kiefer) 4th floor
- Institute of Industrial Building and Construction Design (Prof. Roth) 7th floor
- Institute of Architectural Design (Prof. Staab) 11th floor
- Institute of Sustainable Urbanism (Prof. Carlow) 12th floor
- Institute of Urban Design (Prof. Brederlau) 13th floor
- Institute of Building Design (Prof. Schuster) 14th floor
- Institute of Design and Architectural Strategies (Prof. Grüntuch-Ernst) 15th floor

(not shown on map)

- Institute for Architecture-related Art (Prof. Köbberling)
- Bevenroderstraße 80

- (14) Mensa 1
- (24) Library
- (4) Audimax
- (10) International Office
- (7) International Relations

INFRASTRUCTURE

COMPUTER POOLS

There are various computer pools run by the university computer centre, as well as pools for individual institutes. The institutes' own computer pool rooms are sometimes used for exercises for specific classes and students can also arrange to work there on their own. The installed software ranges from image editing and drawing to modelling to animation and video editing programs. Some institutes also offer a scanning and plotting service.

MEDIA LABORATORIES

The New media has a key role in architecture. Right from the start, students are introduced both to analogue techniques and to working with digital media. There are a multitude of presentation options both in the virtual and real contexts. Computer-designed models can be printed out as drawings, animated and edited for use as video clips, or printed in 3D as life-like models. Two-dimensional drawings can be animated, interactively designed, plotted or cut from boards. Especially with this combination of different techniques, there are virtually no limits to presentation options.

WORKSHOPS

Most workshops are located on the premises of those institutes that use them for teaching; they can be used by students who have previously completed a course there. The department's model workshop is open to all students of Architecture. Student assistants with the appropriate craft training provide assistance and support. Most studios also have small model workshops, which are available for use on request.



Model Workshop

ARCHITECTURE PAVILLON

The department's Pavilion provides a prestigious venue for exhibitions, symposia and other events. With its translucent facade made from glass, which has earned it the friendly nickname "gherkin jar", the Pavilion also hosts the graduation ceremony, is a venue for public discussions and sometimes even has a bar facility. It is the hub of social life within the department and also provides a public space. The Pa-

vilion was designed by Meinhard von Gerkan, formerly a professor at TU Braunschweig, as a classic cube with two floors, a central atrium and a surrounding gallery. It is located in the yard of the old university building. Address: Pockelstrasse 4, in the inner courtyard of the old building;



The "Architekturpavillon" is the central exhibition and presentation space for the architecture department.

STUDIO SPACES

A distinctive feature of studying at the TU Braunschweig is the common work in the students' Drawing Studios ('Zeichensaal').

20 rooms spread out over the campus accommodate more than 300 student working places, which contribute notably to the quality of the study course.

They provide an outstanding platform for discussions, mutual assistance and revision during exercises and design projects, but also for collaborative activity during intensive working phases. The stimulation and exchange of ideas among the fellow students is one of the key experiences in the study course and an appreciated complementation of the academic training.

Studio spaces can be viewed during orientation and the Building Bridges Scouts program can help you apply for a spot.

In addition there are numerous extracurricular student activities like art room tournaments, field trip parties or summer cinema contribute to enhance the strong companionship among the students.



A student's personal workplace in one of the many studios.

Foto: Charlotte Schmidt

DRAFTING AND MODEL MAKING SUPPLIES

BEYRICH SHOP

office supplies like pencils, paper etc.

Pockelsstr. 9 /

Monday-Friday 8 a.m. - 6 p.m.

GRAPHITI

paperboard, glues, little wood-, metal-, plexis-ticks, colours.... all you need!!!

Cyriaksring 35 /

Monday-Friday 9 a.m.- 6 p.m.

Saturday 9 a.m. - 1 p.m.

IDEE

crafts material, paperboard, paints, etc.

Schloss-Arkaden /

Monday - Saturday 9.30 a.m. - 8 p.m.

OHLENDORF

hardware, wood material, glues, etc.

Ackerhof 1 /

Monday-Friday 7.30 a.m. - 6.30 p.m.

Saturday 9 a.m. - 4 p.m.

ADDITIONAL SOURCES

Do-it-yourself stores, e.g. Bauhaus,
Hornbach, Globus, specialised shops for
miniature railway



Semester projects are presented at the different institutes.



© Technische Universität Braunschweig

International Coordination - Department of Architecture:

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international-fk3@tu-braunschweig.de | www.tu-braunschweig.de/abu

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tel +49 531 391 4331

international@tu-braunschweig.de | www.tu-braunschweig.de/international

Office hours: Monday – Thursday 10 a.m. – 4 p.m., Friday 10 a.m. – 1 p.m.

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<https://www.tu-braunschweig.de/en/exchange-students/application>

<https://www.tu-braunschweig.de/arch/dokumente-und-downloads>