

communicative  
innovative  
unique

dedicated  
collaborative  
excellent  
  
active  
creative  
involved  
  
talented  
high-performing  
promising  
  
development-oriented  
dynamic  
unique  
  
productive  
relevant  
stimulating  
  
direct  
hands-on  
communicative  
  
established  
independent  
methodical  
  
constructive  
planning-focused  
interdisciplinary

future-oriented  
open  
inspiring  
  
technology-focused  
systematic  
realistic  
  
innovative  
interconnected  
practice-focused  
  
partnership-oriented

communicative  
innovative  
unique

strategic  
integrated  
  
intercultural  
international  
interactive



## We illuminate the smallest secrets

Night. Peak period at DELTA. Electrons accelerated to

nearly the speed of light produce high-intensity X-rays:

Here, at the world's only electron storage ring located

on a university campus, researchers shed light on the greatest secrets of nature – the tiniest constituents of matter, atoms, protein chains. Under the direction of Professor Metin Tolan, even first-semester students have the opportunity to clarify questions related to research and development. What's more: Students helped build the 115.2 meter long electron storage ring. We place great value on student participation. Who are we?

## We answer current cultural questions

When pupils and teachers in Germany improve,

Professor Wilfried Bos is one of the first to know.

He heads IGLU, the German section of PIRLS (Progress in International Reading Literacy Study), and has also been instrumental in PISA, the study which has raised public awareness about educational research as a science. Our research provides highly regarded impetus for national and international youth, school and education policy. That is why we know first hand what equal opportunity – but without uniformity – means. Who are we?

Prof. Tolan, Physics  
DELTA Electron Storage Ring



Prof. Bos, Educational Research



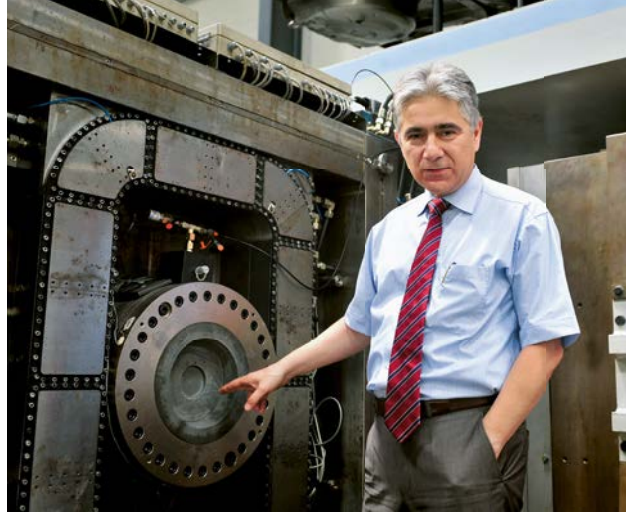
Campus City in Dortmunder U



Prof. Tillmann, Materials Technology



Prof. Tekkaya, Forming Technology and Lightweight Construction



## We study materials from the building component to the atom

New materials are important for solving questions of the future. They are needed for supplying energy, for mobility or medicine. Together with scientists of the University Alliance Ruhr, Prof. Dirk Biermann, Prof.

Wolfgang Tillmann and Prof. Erman Tekkaya carry out research across the entire materials chain to find answers to these questions – an achievement we are proud of. Who are we?

## We develop new media formats

The studio spotlights bathe the set in green light.

‘Sound?’ ‘On!’ ‘Camera?’ ‘Running!’ Professor Michael

Steinbrecher monitors the students in front of the

camera: They are filming their debut television show – under real conditions. Their television appearance is on the schedule of *nrvision*, a participatory TV channel funded by the state of North Rhine-Westphalia, which broadcasts statewide and via Internet. This is possible because we have TV professionals like Michael Steinbrecher as professors. Who are we?



Prof. Steinbrecher, Institute of Journalism



Day by day, I experience TU Dortmund University as a place where the future is envisaged and developed.

It is hard to believe that for scholars just a generation ago, this campus – today bustling with such activity – was then an expanse of green meadow. Here more than 33,500 students and a staff of 6,200 people, including around 300 professors, as well as a number of institutes and cooperation partners conceive perspectives for the future. The university's uniquely organized interplay of 16 faculties provides an environment conducive to technical innovation and fosters advances in methods and knowledge. Engineering and science, as well as the social sciences and cultural studies, have created a university spirit in which interdisciplinarity and interaction, communication and cooperation are not only taught, but also lived. In this sense, I cordially invite you to learn more about TU Dortmund University.

Yours sincerely,



Prof. Ursula Gather, Rector



We are  
TU Dortmund  
University

Nearly 300 professors teach and  
dedicated |  
carry out research at TU Dortmund  
collaborative | excellent

University. Their multifaceted com-

mitment is manifested in the vari-

ous honors and distinctions that  
have been awarded to outstanding  
representatives of the university.

Several colleagues have been award-  
ed an ERC Advanced Grant or are  
speakers of a Collaborative Re-  
search Center (CRC). Other col-  
leagues have received the Alfried  
Krupp Prize for Young Professors,  
the Leibniz Prize, the Adolf Grimme  
Award, the Konrad Zuse Medal, the  
Communicator Award, the Heinz  
Maier Leibnitz Award, the Ars Le-  
gendi Prize, architect prizes, the  
Emil Kirschbaum Medal and Federal  
Crosses of Merit.



Prof. Waldmann,  
Chemical Biology,  
ERC Advanced Grant



Prof. Bayer,  
Physics,  
CRC speaker



Prof. Morik,  
Computer Science,  
CRC speaker



Prof. Sadowski, Biochemical und Chemical Engineering, Leibniz Prize





## active | creative | involved

Around 6,500 new students enroll each year at TU Dortmund

University. They select both classic and innovative courses:

Around 80 bachelor and master degree programs are of-

fered, including a broad-based teacher training program with around 30 courses of study. Sixty percent of the more than 33,500 students have opted for engineering and scientific disciplines. Forty percent are enrolled in cultural studies or social sciences programs.

In addition to their lectures and seminars, the students are engaged in a variety of initiatives and are active in more than 65 different university sports. There are also many cultural initiatives, such as the student orchestra or the university film club.

Under the direction of the chancellor, research and teaching are actively supported by a service-oriented administration, which sees itself as a service provider for all members of the university.





Around 2,000 academic staff members are employed at

## talented | high-performing | promising

TU Dortmund University. Their entry into the world of

research is supported on a high international level. Several

graduate school programs, including three graduate pro-

grams of the DFG, contribute to around 250 doctoral degrees that are awarded each year at the university. The graduate cluster Industrial Biotechnology, which is coordinated by TU Dortmund University and partially funded by industry, is the largest European doctoral program in its field. The International Max Planck Research School in Chemical Biology and the School of International and Intercultural Communication (SIIC) promote the interdisciplinary education and training of young scientists. Other springboards offering excellent perspectives for young researchers are the Collaborative Research Centers (CRCs), research units and priority programs of the German Research Foundation (DFG) as well as individual supervision of doctoral students in all faculties.

According to the assessment of the DFG, in the implementation of the 'Research-Oriented Standards on Gender Equality', TU Dortmund University has ranked in the top group since 2011.



Prof. Wiederkehr,  
Simulation in  
Production Engineering

Prof. Schembecker,  
Speaker of the Graduate Cluster  
'Industrial Biotechnology'







Already in 1958 the Association of Friends (GdF) steadily

development-oriented |  
dynamic | unique

fastly sought to generate support for the construction

of a technical university in Dortmund. Ten years later the

first lecture was held at the 'University of Dortmund',

which as part of an education initiative became increasingly important for the structural transformation in the region. Meanwhile, during its history TU Dortmund University has developed a special profile: Uniquely structured faculties in the engineering and natural sciences and in social sciences and cultural studies work together here. In the QS World University Ranking "Top 50 Under 50", TU Dortmund University ranks fifth place among the young universities in Germany. The GdF has always been committed in its support of the university, and in particular promotes networking with the urban society. Today TU Dortmund University is not only the city's largest education and research institution, but is also one of its largest employers.



Prof. Schmeißer (†1981),  
Founding Rector



In four profile areas, research at TU Dortmund University

**productive |**

is visible both nationally and internationally. The field

**relevant | stimulating**

'Production and Logistics' is ranked at the top of research

funding rankings. In the profile area 'Chemical

Biology and Biotechnology' one focus of research is on active molecules that can be used to specifically influence cell cultures for experimental purposes. In the area 'Modeling, Simulation and Optimization of Complex Processes and Systems' scientists in informatics, mathematics and statistics as well as engineering and economics work together to master huge amounts of data. The empirical research and the developmental concepts of the fourth profile area, 'Youth, School and Education Research', dominate the current discourse on new school forms, which also includes PISA.

Prof. ten Hompel,  
Logistics



Prof. Turek, Mathematics



Prof. McElvany, Education Research







## TU Dortmund University is a 'presence' uni- direct | hands-on | communicative

versity, in which e-learning meaningfully sup-

plements the classes. It offers a wide range of

different teaching formats – including large

lectures, interactive seminars and practical lab experiments as well as individual lessons in music.

The Teacher Training Center (DoKoLL) coordinates teacher training at TU Dortmund University, whereas the Center for Higher Education is responsible for the areas of Continuing Education, Teaching and Faculty Development, Foreign Languages as well as Disability and University Studies (DoBuS). Already some 40 years ago, DoBuS pioneered the motto 'A University for All' and in 2016 received an award from Zero Project in recognition of its work for inclusion.

TU Dortmund University places a special focus on the transition from school to university, for example through the SchülerUni, which offers courses and events for school students, the university's open house days, talent scouting or the Dortmunder Zentrum Studienstart, a center for beginning students. A variety of preparatory courses and close contact to teachers and schools help make the introductory phase of university studies a success. Taking advantage of these and other initiatives offered at the university, about 4,000 students complete their degrees at TU Dortmund University every year – and the trend in the number of graduates is rising.







The natural and methodological science faculties at  
**established | independent |**  
 TU Dortmund University have an outstanding reputation.  
**methodical**

The Faculty of Physics offers the innovative study program Medical Physics. With its popular science

lectures 'Between Breakfast and Borussia', the faculty has sparked growing interest in topics of modern physics. The profile of the Faculty of Chemistry and Chemical Biology is characterized by its close cooperation with the Max Planck Institute of Molecular Physiology on the campus. Both collaborate in the field of drug discovery.



Prof. Ickstadt, Faculty of Statistics

Didactics – a special field of expertise of the Faculty of Mathematics

The Faculty of Statistics is unique in Germany and particularly strong in the interaction with the life sciences, economics and technology.

The Faculty of Mathematics collaborates very successfully with engineering faculties and has developed mathematics education into a special area of expertise. Dortmund's Faculty of Computer Science is one of the largest in Germany. Many of its graduates have established their own companies in the adjacent technology park.





Prof. Mäckler, Architecture

The engineering faculties at TU Dortmund University offer a full

## constructive | planning-focused |

spectrum: The Faculty of Mechanical Engineering is nationally

## interdisciplinary

and internationally one of the leading faculties in production

technology and logistics. The Faculty of Biochemical and Chem-

ical Engineering is the largest in Europe; here the innovative degree program Bioengineering was developed. Electromobility, energy storage and intelligent networks are popular research fields of the Faculty of Electrical Engineering and Information Technology.

The Faculty of Architecture and Civil Engineering is developing new approaches to the holistic planning and construction of buildings. Furthermore, the Faculty of Spatial Planning, established by the university more than 45 years ago, was the first to offer an independent study program for spatial planners. As a consequence of the international planning program SPRING, Dortmund graduates can be found in all continents of the world.



Prof. Schwiegels-hohn, Distributed Systems



Seminar for Art and Art Studies



Prof. Walther,  
Rehabilitation Sciences



Prof. Falkenburg,  
Philosophy and Physics



Prof. Liening,  
Entrepreneurship School

Social sciences and cultural studies at TU Dortmund

future-oriented |

University are collaboration-oriented and embedded in

open | inspiring

various academic networks. In the Faculty of Business,

Economics and Social Sciences, the spectrum ranges

from entrepreneurship research, controlling and marketing to health policy and economic policy. The Social Research Center Dortmund also deals with questions concerning the working environment and organizational change. The Faculty of Cultural Studies promotes campus-wide dialogue with interdisciplinary course programs and offers Germany's only program in science journalism, which also includes an integrated traineeship in this field.

The Faculty of Education, Psychology and Sociology is well known throughout Germany for its research on schools. The Faculty of Rehabilitation Sciences seeks to investigate what support is necessary for people with special needs in their everyday lives. It is the largest independent university institution with this profile in Europe.

Political scientists, philosophers and theologians collaborate in the Faculty of Human Sciences and Theology. The Faculty of Arts and Sports Sciences also trains art teachers, and music is also offered as a major in the course program for prospective secondary school teachers. TU Dortmund University is one of the few universities in Germany to offer course programs for prospective teachers of all school types.



Strong institutional networks in the natural sciences

**technology-focused** |

and engineering profile areas contribute significantly to

**systematic** | **realistic**

the research achievements of TU Dortmund University.

One Max Planck institute, two Fraunhofer institutes, two

Leibniz institutes and the Federal Institute for Occupational Safety and Health (BAuA) are located in close proximity to the campus.

The Max Planck Institute of Molecular Physiology is devoted to systems biology. The Fraunhofer Institute for Material Flow and Logistics, the institute responsible for the EffizienzCluster LogistikRuhr, is a landmark of logistics research in Germany. The Fraunhofer Institute for Software and Systems Engineering develops concepts for complex IT systems with long-term stability. The main focus of the Leibniz Institute for Analytical Sciences (ISAS) is on application-oriented basic research in the field of physical-chemical analysis.

The Leibniz Research Centre for Working Environment and Human Factors (IfADo) investigates the potential and risks of modern work based on insights from the behavioral and life sciences, whereas BAuA explores issues of safety and health at work.

Three other institutes are affiliated with the university: the Institute of Gerontology, the Research Institute for Technology and Disability, and the German Institute for Civic Art. Together with the University of Applied Sciences and Arts and TU Dortmund University, most institutes are members of windo e.V., an association of science institutions in Dortmund.

Brain wave measurement, IfADo







Aerial photograph 2015

Europe's largest technology park adjacent to a university

innovative |

campus is the best proof of the timeliness and relevance

interconnected | practice-focused

of research and teaching at TU Dortmund University.

TechnologieZentrumDortmund (TZDO), the nucleus of the technology park, focuses on seven fields of technology: micro-/nanotechnology, IT, electronics, logistics, production technology, biomedicine and environmental technology.

Approximately 350 established and innovative spin-off companies with more than 10,000 employees benefit from the dense infrastructure and the synergy of industry and science.

The dialogue between the university and industry has created numerous spin-offs and networks. Since 2011 TU Dortmund University has been funded in the nationwide competitive grant program 'EXIST-Culture of Entrepreneurship: University-Based Business Start-Ups' for its sustainable entrepreneurship concept 'tu>startup'.

With the Deutschlandstipendium, TU Dortmund University has also created an attractive grant program for companies to support outstanding students in their region. Companies can thus make contact early on to potential specialist employees.





Welcome event for first-semester students in the stadium of the SIGNAL IDUNA PARK

Six universities and some twenty research institutions  
**partnership-oriented** |  
 have made Dortmund into a major science location. The  
**strategic** | **integrated**

master plan 'Science City Dortmund', which was adopted in  
 2013, further strengthens this profile and the international

competitiveness of the science location Dortmund. For the outstanding communication of this project, TU Dortmund University and the Dortmund University of Applied Sciences and Arts were awarded the University Communications Prize 2015 by the German Rector's Conference and the publisher Die Zeit together with the Robert Bosch Foundation. The city surprises foreign students and researchers with its many aspects: intercultural diversity and green recreation areas, thrilling sporting events and a rich cultural offering – all that is Dortmund. For the European Capital of Culture RUHR.2010, the Dortmunder U opened as a center for art and creativity. Since then TU Dortmund University has been showing changing exhibitions of science and art at 'Campus City'.

In a national comparison, the Ruhr Region ranks fifth among the science regions. The University Alliance Ruhr (UA Ruhr) between TU Dortmund University, Ruhr-Universität Bochum and the University of Duisburg-Essen strengthens the achievements of all three partners in the region and expands the shared focus areas in research and teaching.



International courses, exchange and research

**intercultural** |

projects promote intercultural skills in a global

**international** |

society. The International Meeting Center IBZ

**interactive**

was built as the central forum for dialogue on the

campus to facilitate contacts between students

from all over the world as well as with companies that are active worldwide. Events with a global perspective such as the International Career Fair, the International Summer Program (ISP) or the Open Courses, to which refugees are warmly invited, show how people from different cultures learn from each other and together with each other.

The contact to North America is particularly fostered, for example with the liaison office of the University Alliance Ruhr (UA Ruhr) in New York coordinated by TU Dortmund University. Additional UA Ruhr offices are in Moscow as well as in Rio de Janeiro and São Paulo. Many collaborations and international projects of the faculties and scientists fill these contacts with life.



International Meeting Center IBZ



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