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INTERNATIONAL
INTERDISCIPLINARY
INNOVATIVE



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MISSION STATEMENT

The TUHH is a competitive, family-friendly university that acts sustainably, sets itself high performance and quality standards and aims for excellence in basic research and in its areas of expertise. Bound by Humboldt's educational ideal, it is an internationally oriented university in the

Hamburg metropolitan region. It contributes toward development of the technical and scientific competence of society by using modern teaching and learning methods to train young engineers and by promoting technology transfer and the creation of companies.

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WELCOME!

The TUHH is a compact university of technology with a clear research profile and modern, practice-oriented learning methods. Our aim is to train creative minds with an individual professional profile and a high level of social competence.

We stand for the development of Hamburg as an innovative metropolis. The TUHH makes important contributions to this by developing new technologies for energy supplies, mobility, logistics, and digitization, for example. In this context the TUHH will

continue to develop and to grow as a highly advanced, top-flight university with an international appeal.

The TUHH stands like few if any other German universities for successful reforms and unconventional approaches. In 1994 it was the first university in Germany to launch a Bachelor's degree and its wide range of English-language study programs attracts students from around the world. Furthermore, the TUHH raises nearly half of its budget in third-party public and private research funding.

We promote cutting-edge research and entrepreneurial spirit. Due to its interdisciplinary structure and its outstanding resources of personnel and equipment the TUHH is able to provide a modern, research-related and at the same time practice-oriented education – a combination that opens up for graduates excellent opportunities in the employment market regardless of cyclical economic fluctuations.

Hamburg – the home of the TUHH – is, by the way, not only right at the top geographically; in European rankings it is also one of the regions with the highest level of dynamics and the best growth prospects: a vibrant metropolis with a high quality of life.

I hope you enjoy discovering the TUHH and invite you most cordially to become a part of the exciting TUHH story!

A handwritten signature in black ink, appearing to read 'Ed Brinkma', written in a cursive style.

Prof. Dr. Ed Brinkma
President of the Hamburg University of Technology (TUHH)

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THE YOUNG UNIVERSITY

The TUHH is one of the youngest and – at the same time – the most successful universities in Germany. The first plans for a university of technology south of the Elbe River date back to 1928. It took a further 50 years to come about. The TUHH was founded in 1978 with the aim of promoting structural change in the region. Its founding principles are one of a kind in Germany: priority for research, interdisciplinarity, innovation, regionality, and internationality are the foundations of the TUHH success story. Its guiding principle of developing “technology for people” has always been at the heart of its research, teaching, and technology transfer. Between 1982 and 2005 the TUHH campus in the south of Hamburg developed into a functional and at the same time architecturally interesting ensemble of buildings that fit naturally into the park landscape and the surrounding neighborhood. Research commenced in 1980, followed by teaching in 1982. Today around 100 professors and 1,200 employees work at the TUHH. Its good ranking results and numerous awards indicate that the TUHH operates successfully in many areas.

- 1978 Year of foundation
- 1980 Research commenced
- 1982 Teaching commenced
- Around 100 professors
- Around 620 academic staff
- Over 7,600 students
- International students: 18 percent
- EUR 122.9 million total expenditure
- EUR 68.7 million operating subsidy
- EUR 42 million third-party funding



AREAS OF EXPERTISE AT THE TUHH

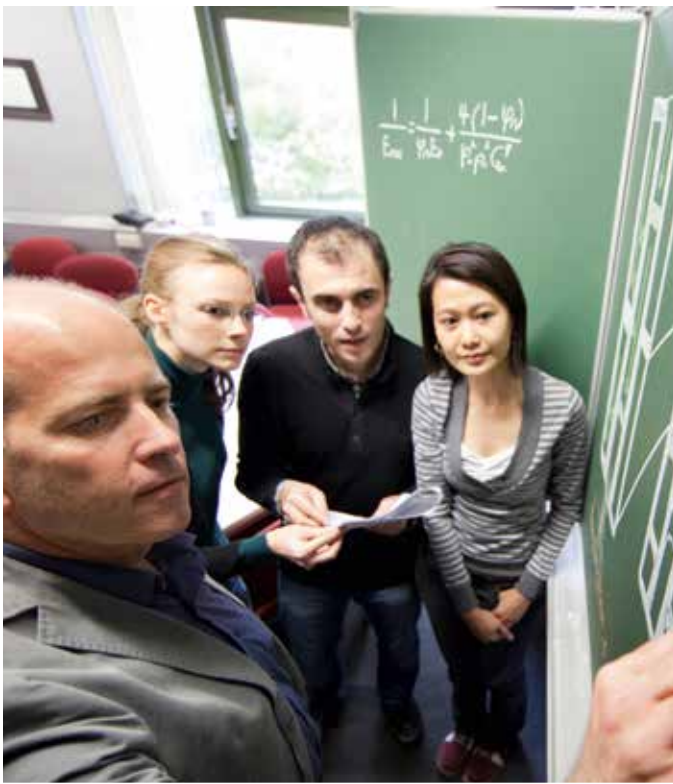
- Green technologies
- Life science technologies
- Aviation and maritime systems

RESEARCH CENTERS AT THE TUHH

- Integrated biotechnology and process engineering
- Climate-friendly energy and environmental engineering
- Regeneration, implants, and medical engineering
- Logistics and mobility
- Maritime systems
- Digital production, logistics, and MRO
- Aircraft systems engineering
- Product-oriented material development

RESEARCH

The TUHH's guiding principle is to develop “technology for people.” Scientists at the TUHH work on eco-friendly marine propulsion systems or renewable energy systems. They conduct research into aircraft that make less noise and develop sensor technology for artificial hands. Research and teaching are decoupled organizationally, with research undertaken at cross-disciplinary research centers and teaching at schools of study; there are no traditional faculties. The TUHH's research expertise is bundled in a Center for Research and Innovation (ZFI) with three areas of expertise. While different disciplines collaborate at the research centers, teaching is organized by subject areas. This structure promotes interdisciplinary teaching and learning and thereby significantly improves academic alignment to new research areas. A large number of interdisciplinary collaborations, a collaborative research center, and many other projects funded by the German Research Foundation (DFG) testify to the success of this new structure. At the TUHH young academics are involved as early as possible in both basic and application-related research and development projects. To sustainably promote the transition to a career, science- and career-relevant key competences are taught at events held by the Graduate Academy for Technology and Innovation.



BACHELOR'S PROGRAMS

- 14 study programs
- Admission requirement: General higher education entrance qualification
- Degree: Bachelor of Science

MASTER'S PROGRAMS

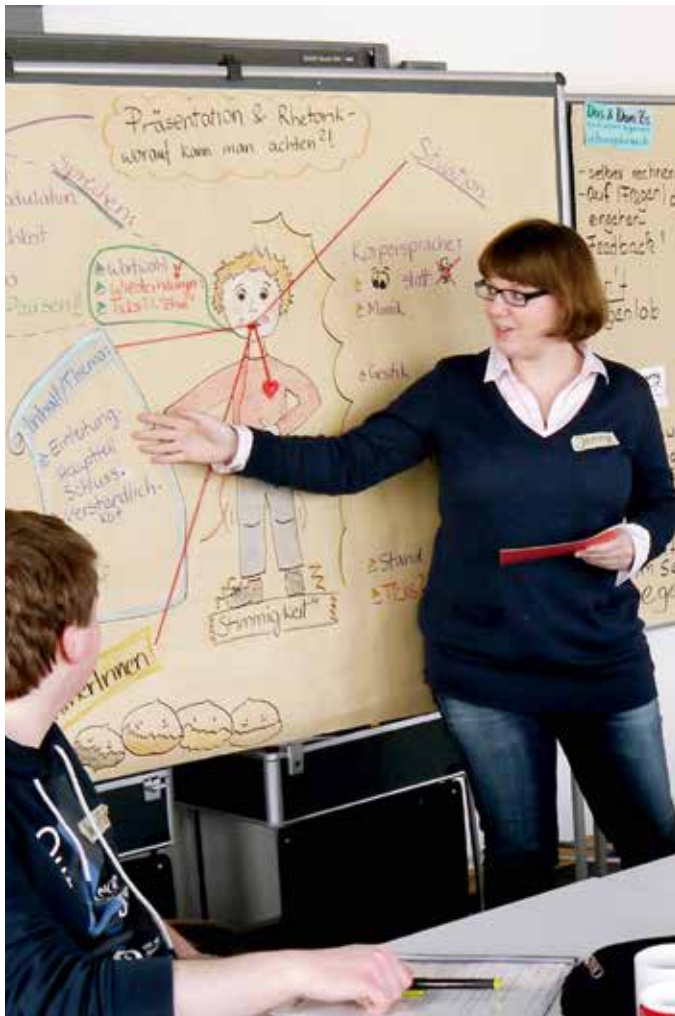
- 28 study programs
- Admission requirements: General higher education entrance qualification and Bachelor of Science
- Degree: Master of Science

INNOVATIVE STUDY ORGANIZATION

- New teaching methods in small groups
- Quality improvement and assurance by the Center for Teaching and Learning (ZLL)
- Problem-based learning (PBL)

STUDY & TEACHING

The aim of teaching at the TUHH is to prepare engineers in the best possible way for the tasks that await them in their careers and to do so with due regard for practice with a research and fundamental orientation. The study programs benefit from many years of experience with the Bachelor's and Master's degree system. In 1994 the TUHH launched the first Bachelor's study program in Germany. The TUHH ensures the highest teaching quality by means of an especially high staff-student ratio. Intensive programs for the first years of study – from the preliminary course via StartING@TUHH tutorials and self-organized study to specialized tutorials – underscore our desire to teach young engineers and scientists in a modern, efficient, and connected way. The STUDIS Admission and Registration Office is the point of contact on all student matters from applying for admission to de-registering as a student. The International Office is the point of contact for promoting international mobility, both for advice and assistance on studying abroad and for supporting international students at the TUHH. The TUHH also offers assistance with the transition from university to a career, such as the wide-ranging services of the Career Center. To ensure long-term quality of teaching we are evaluated externally and constantly review our own performance – not only in the context of accreditations but also, above all, at our Center for Teaching and Learning.



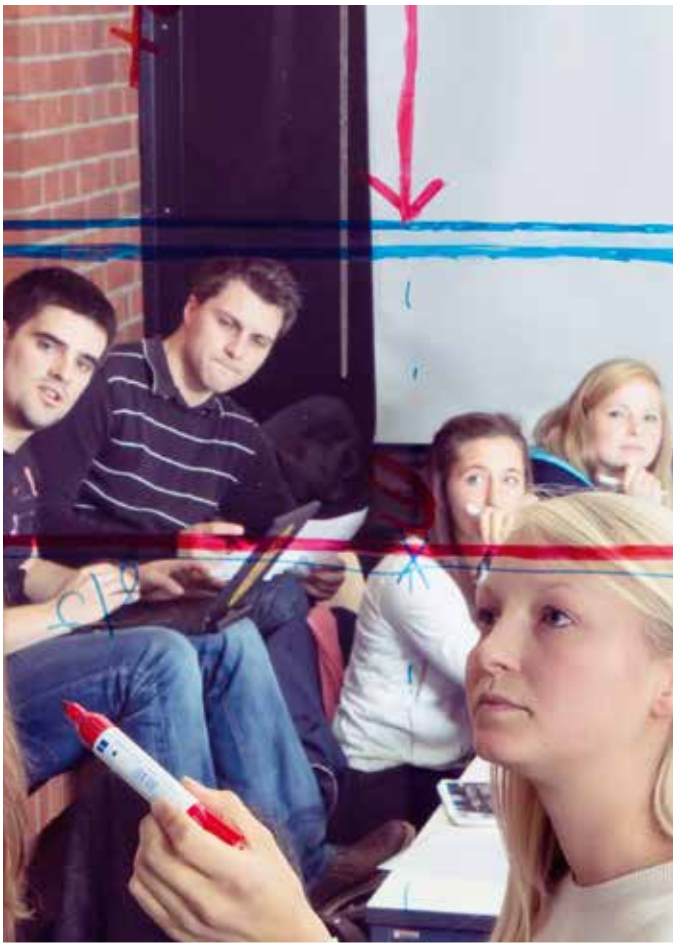
CENTER FOR TEACHING AND LEARNING (ZLL)

From designing didactically consistent courses and efficient self-study to setting competence-oriented exams, the TUHH's Center for Teaching and Learning (ZLL) supports teachers by means of the latest didactical findings and methods. Its twofold structure makes the ZLL especially successful. Teaching coordinators collaborate closely with the TUHH's six schools of study. Specialist speakers contribute their didactic expertise. So far, 380 people involved in teaching at the TUHH have sought advice from the ZLL, and over 100 didactic qualifications have taken place. Tutors trained at the TUHH to help students to study by themselves are among those that have benefited. The aim is to teach engineering subject matter in a practice-oriented and research-related way. In their very first semester, students working on the interdisciplinary Bachelor's project can gain initial experience of product development – from the conception to the construction of a prototype. To provide space for practice-oriented teaching the ZLL has so far initiated the students' workshop, the learning center, and the studio learning room. By supporting the evaluation of courses the ZLL also promotes dialog between learners and teachers at the TUHH.

THE ZLL: QUALITY ASSURANCE IN TEACHING SINCE 2011

- Didactic guidance and further qualification for teaching staff
- Active learning / Project-based learning / Research-based learning
- Methods for special teaching situations
- Interdisciplinary Bachelor's project
- Funded by the Federal Ministry of Education and Research





STUDENT COUNSELING CENTER

- study@tuhh.de

STUDIS – ADMISSION AND REGISTRATION SERVICE

- studierendenservice@tuhh.de

CAREER CENTER

- career.service@tuhh.de

TU & YOU ALUMNI AND FOUNDATION

- tuandyou@tuhh.de



STUDY PROGRAMS

BACHELOR OF SCIENCE

Bioprocess Engineering • Civil and Environmental Engineering • Computer Science • Computer Science and Engineering • Electrical Engineering • Energy and Environmental Engineering • General Engineering Science • Logistics and Mobility • Mechanical Engineering • Mechatronics • Naval Architecture • Process Engineering • Technomathematics

MASTER OF SCIENCE

Aircraft Systems Engineering • Bioprocess Engineering • Civil Engineering • Computer Science • Computer Science and Engineering • Electrical Engineering • Energy and Environmental Engineering • Energy Systems • International Management and Engineering • Logistics, Infrastructure and Mobility • Materials Science • Medical Engineering • Naval Architecture and Ocean Engineering • Process Engineering • Product Development, Materials and Production • Renewable Energy • Theoretical Mechanical Engineering • Water and Environmental Engineering

INTERNATIONAL MASTER'S PROGRAMS

Chemical and Bioprocess Engineering • Environmental Engineering • Information and Communication Systems • Mechanical Engineering Management • Mechatronics • Microelectronics and Microsystems

JOINT MASTER'S PROGRAMS

Environmental Studies: Cities and Sustainability • Global Technology and Innovation Management & Entrepreneurship • Ship and Offshore Technology

MASTER OF BUSINESS ADMINISTRATION

MASTER OF ARTS

Technology Management (Northern Institute of Technology Management NIT)



IT HAS A LOT TO OFFER – THE TUHH CAMPUS

- A state-of-the-art library with access to around 500,000 media
- An attractive park landscape and interesting architecture
- A wide-ranging university sports program
- Numerous activities from public lectures to parties
- The TUHH Orchestra, Big Band, Choir, and Theater Group
- Around 50 societies, from A as in Amateur Radio via R as in Roboting to W as in Water Sports

CAMPUS LIFE

The mixture on the TUHH campus is easy to describe: young, creative, open, international, and multicultural – an ideal atmosphere in which new ideas can develop. The campus offers a wide range of spaces for an inspirational exchange of ideas. After lunch in the light and airy canteen, cozy cafés invite you to spend time with fellow-students and colleagues over a coffee. You will also always find somewhere for a relaxing chat on the sunny campus or under the trees by the lake. In addition, the main university building with its learning and communication center is open 24/7, and to ensure that alongside the many study-related activities leisure does not draw the short straw a range of leisure facilities is available, including the university sports activities and the university's 220 square meter fitness studio. Around 50 student clubs and societies, from A for amateur radio to W for water sports invite you to put your textbooks down and look further afield. At the TUHH, students can join forces to make music, to stage plays, to keep bees, to drive racing cars, to train a robot football team, to invent, to take up social commitments and so on. Academic education does, after all, include culture and sport, interdisciplinary content and communication, fun and companionship. The TUHH promotes all of these, seeing its students as personalities who will shape and develop our future with a sense of social responsibility.



COLLABORATION WITH SUCCESS

- Airbus Deutschland GmbH
- Deutsches Zentrum für Luft- und Raumfahrt (DLR)
- Lufthansa Technik AG
- Helmholtz-Zentrum Geesthacht für Material und Küstenforschung
- Deutsches Elektronen-Synchrotron (DESY)
- Industrielle Biotechnologie Nord e.V. (IBN)
- Universitätsklinikum Hamburg-Eppendorf (UKE)
- Fraunhofer-Gesellschaft

COOPERATION

Together you can move more. To make Hamburg more competitive as a scientific location the TUHH cooperates extensively with business and industry in the metropolitan region. These partners include both leading global corporations and small and midrange businesses, and they are the backbone of the development of successful cooperation networks. Aviation plays a special role. The TUHH and Airbus Deutschland GmbH operate a technology center in nearby Finkenwerder. The German Aerospace Research Center (DLR) and Lufthansa Technik AG are also TUHH partners. In materials research the TUHH has joined forces with the Helmholtz Center in Geesthacht to set up the Center for High-Performance Materials. In medical engineering the TUHH maintains close ties with many Hamburg hospitals, including the University Medical Center Hamburg-Eppendorf (UKE). It is also on good terms with the Fraunhofer Society and the German Electron Synchrotron (DESY). As a novel form of promoting science the TUHH has also set up a Research Group of Excellence with junior professorships awarded for six-year terms. This is a model approach, given that business, science and the state invest equally in bright minds in order to transform ideas into innovations faster.





STARTUP DOCK – ENTREPRENEURSHIP AT HAMBURG UNIVERSITIES

- One-on-one advice provided by startup consultants
- Customized workshops organized by the SD Academy
- Promotional and funding opportunities
- Networking within the Hamburg startup scene
- Workshop, Office and meeting rooms



STARTUP CENTER

The TUHH's Startup Dock has inspired, qualified and promoted startups at Hamburg universities since 2013. It was funded as part of the EXIST startup culture/startup university program by the Federal Ministry of Economics and Technology. The Startup Dock advises and supports students, academics and alumni of Hamburg universities and research institutions, helping them to realize their technology-oriented and knowledge-based business ideas. In individual one-on-one coaching and teaching and further education formats teams that dock at the SD find the kind of assistance they need in the early stages of starting up a business. The benefit from the know-how, the experience and the network of the Hamburg university and startup scene. Many students and academic staff first come across the startup concept at university. By means of close cooperation with university chairs, comprehensive consulting offers and regular events they are inspired to think and act entrepreneurially and, jointly with the universities, the startup culture is promoted and strengthened on-campus and in the city of Hamburg.



TECHNOLOGY TRANSFER

TUTECH stands for active technology and knowledge transfer. A private sector company owned by the TUHH and the city of Hamburg, it is at one and the same time an advisor, broker, initiator and coordinator at the interface of the university and private enterprise between research and the market. Since it was founded in 1992 as the first university-owned technology transfer company in Germany, TUTECH has been active far beyond the borders of Hamburg and Germany. By connecting entrepreneurial and scientific potential TUTECH aims to create sustainable values for society, science and the economy. Genuine innovations result from the utilization of new research findings and inventions. Close cooperation with all state universities and numerous research institutions in the Free and Hanseatic City of Hamburg is ensured via the sister company HAMBURG INNOVATION and the IP management patent agency.

TUTECH INNOVATION GMBH

- Technology and knowledge transfer since 1992
- Research management
- Intellectual Property (IP) management
- Startup support – jointly with the TUHH's Startup Dock
- Competence development and consulting





INTERNATIONAL

Markets grow together and the global education market is booming, so to study abroad is to open up opportunities. Engineers with international experience are in greater demand than ever and there are many indications that this will continue to be the case. The TUHH has therefore set itself the target of enabling all interested students to spend time at partner universities in other countries. It supports the project actively and, with third-party assistance, by means of scholarships. The TUHH has an extensive network of first-class partner universities in Europe, Asia and the Americas. Conversely, the extensive range of international study programs and its excellent reputation attract many international students to the TUHH as either exchange or full-time students. Around one in five TUHH students are from other countries. English-language lectures attended by German students help establish lasting contacts. Research benefits from an active international exchange. Every year the TUHH welcomes Humboldt scholarship holders as guests. Hospitality and an international study program are two of the TUHH's commitments. Because education is universal and knows no boundaries.

NETWORKS AND EXCHANGE PROGRAMS

- ERASMUS+ (Europe)
- International Study and Training Partnerships (ISAP) (United States, Canada)
- European Consortium of Innovative Universities (ECIU) (Europe)
- TUHH partnerships independent of programs



NIT – THE BUSINESS SCHOOL ON THE TUHH CAMPUS

- Double master's degree in Technology Management (MBA) & Engineering (MSc)
- Students and teachers from all over the world
- Learn, work and live under one roof
- Close contact with industry partners
- Wide-ranging further education options – customized and for companies



TECHNOLOGY MANAGEMENT

Modern, cosmopolitan, committed – epithets that apply to the NIT Northern Institute of Technology Management just as they do to its students. At the NIT, talented engineers from around the world study for an MBA in Technology Management and, in parallel, an MSc, or for an in-service MBA. As an international community they learn in the English-language master's program how to perform management tasks responsibly. A maximum 35 students per class thereby add entrepreneurial thinking, foreign languages and intercultural competence to their technical know-how. The NIT, in the heart of the campus, is with its seven classrooms, 50 offices and 65 apartments a place of learning, working and living. Many companies support the private, non-profit university facility by providing scholarships, internships and thesis subjects for selected students. In the further education sector the NIT prepares students for the working world of the future. Courses range from short workshops to multi-year customized personnel development programs. The NIT's vision is to promote lateral thinkers who make use of new technologies for the benefit of humankind and the environment.



"It's Hamburg and the sun is shining ... or not.
Winter is hard, summer a joke.
The fine day by the lake ends with thunder and lightning.
...
So many hardships and yet no reason to move away.
People here have their heart in the right place and their feet
in gumboots.
...
Why do they like living here?
Because people first feel, then think, and then talk."

Beginner, City Blues



HAMBURG

Let's be honest. Scientific facts, excellent research and teaching and adequate funding are all well and good. But studying at the TUHH would not be half as good without the flair that is typical of Hamburg. The city on the Elbe River is not only Germany's second-largest; it is also the finest. Hamburg combines the urbane and the maritime. It is green and criss-crossed by waterways. It is noble and chic around the Alster and the Jungfernstieg. It is original in Altona, hip in the Schanze district and creative in the Karolinen-viertel and St. Pauli. It is never boring. By day you can row around the canals, jog in the Stadtpark or simply cruise around town. Sunset by the riverside. Cinema, theater, concert or festival in the evening. Pub, bar or club at night. Fischmarkt in the early hours before the new day dawns. Hamburg is a – no: the – city worth living in. Our pearl. By the way, all that talk about the bad weather and the chilly, standoffish people is a pack of lies. Honestly.



HAMBURG UNIVERSITY OF TECHNOLOGY

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Student Counseling Center: 040 42878-2232

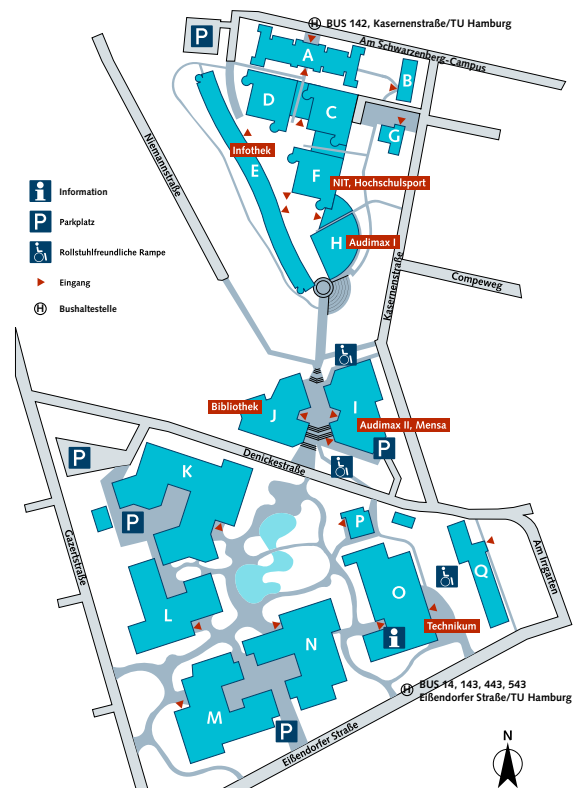
E-Mail: pressestelle@tuhh.de

www.tuhh.de



HOW TO GET TO THE TUHH:

- By S1 to HH-Hauptbahnhof, then S31/S3 to Harburg-Rathaus or Heimfeld
- Harburg is an ICE and EC central station
- By S-Bahn S31/S3 to Harburg-Rathaus or Heimfeld
- From HH city center via Elbbrücken and Wilhelmsburger Reichsstraße toward Hamburg-Harburg Mitte



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