

Continuing Education

Rapid technological progress and increasing international competition have resulted in a process of continual change within the economy. For this reason, continuing education has become increasingly important; here subject-specific knowledge can be kept up-to-date and individuals can gain additional qualifications.

Today's employees must be prepared to pursue life-long learning. The experience the University has gained in industry-relevant teaching and research enables us to provide high-quality courses in the field of continuing education, an area of particular importance at the University. As an active provider of education within the Karlsruhe Technology Region, our courses cover the spectrum from one-day seminars and training courses, to long-term contact programs such as "English and International Project Management" or the international Master's program in "International Construction Management". The University is also able to create courses for specific industries or the public sector in response to demand from these sectors. In addition, our educational programs benefit from our research and development activities.



Continuing Education—Up-to-date training for the workplace

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Published by the Rector of
Karlsruhe University of Applied Sciences
Prof. Dr. A. Blüggel, Dept. of Electrical
Engineering and Information Technology,
Landesbibliothek Baden 016203, M. Rützel, L.
Zimmermann
Printed by: Bachmann & Weiss, Karlsruhe
5000 Apr. 2008

Hochschule Karlsruhe Technik und Wirtschaft

UNIVERSITY OF APPLIED SCIENCES



Facts



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Our University



The Campus of Karlsruhe University of Applied Sciences
(Ludovic-Bouloger-Camp - Nr. 97046C)

Karlsruhe University of Applied Sciences is a state-owned institution of higher education. Historically it grew out of the "Großherzogliche Badische Baugewerkschule" (Grand Duchy College of Building) founded in 1878. In 1919 this educational institution was renamed the "Badische Höhere Technische Lehranstalt/Staatstechnikum" (Baden Higher Technical College) and was well regarded within Baden and further afield. In 1963 the name was changed to "Staatliche Ingenieurschule Karlsruhe" (Karlsruhe State College of Engineering).

In the early 70's questions about recognition and equivalence of engineering studies within the EU led to the foundation of the Universities of Applied Sciences in Germany. On the 1st of October 1971 the Karlsruhe State College of Engineering became the Karlsruhe University of Applied Sciences with approximately 1.500 students.

The University today in figures:

(as of 2008)

Students	approx. 5.800
Professors	175
Honorary Professors	16
Full- or part-time lecturers and instructors	330
Technical and administrative staff	305
International students	approx. 12%

The ten teaching and administration buildings are located on an attractive 25-acre campus situated at the edge of Karlsruhe's green belt, only a few minutes from the city center.



Degree Programs



HSKA is the largest university of applied sciences in the German federal state of Baden-Württemberg with an extensive range of study programs in the engineering and business fields.

A Bachelor's degree can normally be obtained after seven semesters, including a mandatory one-semester internship in industry. This means that students will hold an internationally recognized academic qualification after only 3,5 years and will then be ready to enter the workplace. The higher-level qualification, the Master's degree, can normally be obtained after an additional three semesters of study.

	Bachelor	Master
Architecture	✓	✓
Automotive Engineering ¹	✓	✓
Business Administration and Engineering	✓	✓
Business Information Systems	✓	✓
Cartography and Geomatics	✓	✓
Civil Engineering	✓	✓
Communication and Information Technology	✓	✓
Computer Science	✓	✓
Construction Management	✓	✓
Construction Management and Economics	✓	✓
Electrical Engineering	✓	✓
Electrical Engineering and Automation	✓	✓
Electronics ²	✓	✓
International Construction Management ⁴	✓	✓
International Management	✓	✓
Mechanical Engineering ¹	✓	✓
Mechanical Engineering and Mechatronics	✓	✓
Mechatronic and Micro-Mechatronic Systems ³	✓	✓
Mechatronics ¹	✓	✓
Sales Engineering	✓	✓
Sensors	✓	✓
Sensor Systems Technology ⁴	✓	✓
Surveying and Geomatics	✓	✓
Technical Communication	✓	✓
Tri-national Civil Engineering ⁵	✓	✓

- 1 includes a German-French option leading to a double degree.
- 2 first semester taught in English, remaining semesters taught in German.
- 3 students spend one year at the French or Spanish partner institution.
- 4 degree program taught in English.
- 5 leading to French, Swiss, and German degree.

Programs and Additional Lectures



The primary mandate of Karlsruhe University of Applied Sciences is to narrow the gap between the theoretical world of lectures and the practical world of the workplace. Degree programs at the University are therefore specifically designed to combine an academic education with the requirements of industry.



Project work in the multimedia laboratory.

Important elements of the application-oriented curriculum are:

- ✓ industrial and business experience of the teaching staff
- ✓ industry-relevant work in laboratories and practical courses
- ✓ integrated internships
- ✓ application-oriented project work
- ✓ application-oriented final thesis

The integrated internships are of particular importance to our goal of application-oriented education. By working in companies, engineering consultancies, and public offices, students become more familiar with these working environments and the application of academic theory to practical problems.

In addition to the main course of studies, students also have the opportunity to visit a variety of additional lectures (see selection below):

- ✓ Safety Engineering, Environmental Protection
- ✓ Ethics in Science and Technology
- ✓ Languages
- ✓ Quality Management
- ✓ Marketing Law
- ✓ Psychology, Public Speaking

The University has also established a program, "Foreign Languages and International Project Management", which is available to all students. In this comprehensive program students not only study English, French or Spanish for use in business and engineering, but also intercultural communication. Target language lectures in International Project Management also help prepare students for careers in an international work environment, as do technical lectures given by visiting professors from partner universities in languages other than German.

International Programs



To encourage international student exchange, the University has developed partnerships with about 80 universities worldwide.

The comprehensive program of language courses offered by the University enables students to prepare effectively for a period of study or work in a foreign country. This can take the form of a study semester with credit transfer, a traineeship, or the completion of the final degree thesis.

For our foreign students, visiting the University as part of an international exchange program for several semesters, and for visiting professors from partner universities, the University has the Europahaus (student accommodation) and the Visiting Professor House.



Europahaus: accommodation for both foreign and German students

Across its faculties the University offers a range of international degree programs leading to dual qualifications. The following degree programs are offered:

- ✓ Automotive Engineering, Mechanical Engineering, and Mechatronics (ENSMM, Besançon, F)
- ✓ Business Information Systems (Eastern Michigan University, USA)
- ✓ Business Information Systems (Université Claude Bernard, Lyon, F)
- ✓ Computer Science (Eastern Michigan University, USA)
- ✓ Geomatics (Universidad Politécnica de Valencia, E)
- ✓ International Management (Haute Ecole Valaisanne, Sierre, CH)
- ✓ International Management (IMEA, Besançon, F)
- ✓ Management and Engineering (Institut Supérieur du Commerce, Paris, F)
- ✓ Mechanical Engineering and Mechatronics (E U de Ingeniería Técnica Industrial, Gijón, E)
- ✓ Mechatronic and Micro-Mechatronic Systems (Universidad de Oviedo, Oviedo-Gijón, E; ENSMM, Besançon, F)
- ✓ Sensor Systems Technology (VIT University, IND)

A tripartite degree program in the field of Civil Engineering involving universities in Basel (CH) and Strasbourg (F) allows graduates to obtain French, Swiss, and German degrees.

The City of Karlsruhe



Karlsruhe, known as the "Residence of Justice" because it is the seat of Germany's two supreme courts (the Federal Constitutional Court and the Federal Supreme Court), occupies a strategic location within the European Union. It not only lies at the intersection of international transportation and energy networks, but in recent years it has become one of the leading centers of technology in the Federal Republic of Germany.

Karlsruhe was founded in 1715 by Margrave Karl Wilhelm as the fan-shaped town shown below. Today it is a relatively compact city with a population of about 270,000. Located between the Black Forest and the Rhine River, near the Palatinate and Alsace (France), Karlsruhe offers excellent recreational opportunities. In addition, its extensive network of trams provides easy access to such recreational centers as Baden-Baden or Bad Herrenalb in the northern Black Forest.

Karlsruhe boasts a wide variety of cultural attractions, including the Baden State Theater as well as numerous private theaters, museums, and art galleries. A variety of institutions of higher education are also located in Karlsruhe: the largest university of applied sciences in Baden-Württemberg, the oldest Technical University, and the oldest University of Education in Germany. The Academy of Art, the College of Music and the Design College - in collaboration with the Center for Art and Media - complete the spectrum.

The University of Applied Sciences is situated within easy walking distance of the city center as well as the large park and art gallery adjacent to the palace.



Map of Karlsruhe in 1790 (GUA Karlsruhe 11/Karlsruhe 165)

Research and Development



In addition to its commitment to high standards of excellence in teaching, the University is very active in the area of applied research.

The Institute of Applied Research (IAF), the central unit for research and development at the University, maintains contact with all research activities here and thus establishes an environment in which applied interdisciplinary research and development is possible. In order to undertake research projects the IAF not only has its own equipment but can, when necessary, access the resources of the departments.

The main objective of the IAF is to ensure that the scientific potential of the University is made accessible to interested parties, especially industry, through a variety of cooperative activities. Institutes devoted to applied research, which are located within various departments of the University, include the:

- ✓ Institute of Geomatics
- ✓ Institute of Natural Sciences Education for Engineers
- ✓ Institute of Production Engineering and Manufacturing
- ✓ Institute of Refrigeration, Air-Conditioning, and Environmental Technology
- ✓ Laboratory for Automation Technology
- ✓ Research Institute of Hydraulic Engineering

The University has established the Foreign Language Institute, which carries out research on the use and teaching of foreign languages for professional purposes. The Institute also provides teaching in this field as well as developing students' intercultural communication skills.



Laser cutter in the Institute of Production Engineering and Manufacturing

Technology Transfer



Installation of a sensor system on a buoy in the Rhine river

Research and development at the University is closely linked to the area of technology transfer. The Transfer Centers perform work in consultancy, research, and industrial studies offering complete solutions to a variety of challenges while contributing to the field of further education. The University benefits directly from Transfer Centers because the knowledge and experience that is gained through cooperation can be applied to teaching, so strengthening the practical orientation of our courses. Students are also able to take part in project work within the Transfer Centers and so gain experience with the latest developments in technology.

For general advice and subject-specific problems, industry can consult the following transfer centers:

- ✓ Computer Use in Mechanical Engineering
- ✓ Electrical Power Supply and Electromagnetic Compatibility
- ✓ Industrial Data Processing and Automation
- ✓ Infrastructure Management
- ✓ Mechatronics
- ✓ Technical Consultation
- ✓ Technical Sales + Management
- ✓ Optoelectronic and Sensor Technology

With the focus GmbH the University has set up a company where contract research and development for private companies can be carried out as well as activities involving technology transfer in addition to services in the area of knowledge transfer and training, for example through the provision of training courses. focus is also involved in the control and management of research projects and the management of the tender process for research projects.