

Information & Advice

■ Commencement of Study

The Master's program of "Electrical Engineering" at the University of Applied Sciences in Kempten begins at the start of the summer semester on March 15, and at the start of the winter semester on October 1.

■ Study Fees

The study is free of charge.

■ Application & Registration

The application and registration procedure for the Master course will be published on the website of the University of Applied Sciences Kempten.

■ Study advice

For more information please contact the Director of the Master's Study Program "Electrical Engineering":

Prof. Dr.-Ing. Dr. h.c. Helmut Biechl
Building TE, room 135a
Phone: +49(0)831 2523-253
E-Mail: biechl@hs-kempten.de

■ Extra Information for Foreign Students

More detailed information for foreign students in regards to residence permission, accommodation, costs of living, climatic conditions and the public transportation system can be found on the website of the University of Applied Sciences Kempten. Our team from the International Office will always be happy to help you with any queries as well.

More information about the Master's study is available in the Internet:

www.hs-kempten.de



Why Study in Kempten?

At the University of Applied Sciences Kempten we offer you high quality courses in an attractive environment. Lecture rooms, laboratories, the library, computer rooms and the cafeteria are all **very modern** and equipped with the **newest technology**. All the mentioned facilities are located on the campus.

Low cost accommodation in the student residencies and in the open housing market makes the choice of studying in Kempten quite easy. The lively metropolis of the region "Allgäu" with its 70,000 inhabitants is a popular shopping area for both the young and the older generation.

In the region there are many small, medium and large companies operating in the field of electrical and telecommunication engineering worldwide. We have developed **very close industry contacts** through many projects, Bachelor and Master's Thesis's, technology transfer, industry semesters as well as practice oriented research and development.

Apart from this, the amazing greater Kempten area with its Alpine landscape offers many leisure activities throughout the year. Kempten and the University are about 120 km away from **Munich**, the Bavarian capital with an **International Airport**. It can easily be reached by car as well as by public transportation. Furthermore there is another airport just 30 km away in the town of Memmingen, which is good for connecting flights etc.

- University of Applied Sciences Kempten
Bahnhofstraße 61
87435 Kempten (Allgäu)

Phone number 0049 831 2523-0
Fax 0049 831 2523-104

post@hs-kempten.de
www.hs-kempten.de



Electrical Engineering Master of Engineering



Description and Objective of the Master's Program

With the international Master's study program of **"Electrical Engineering"** the University of Applied Science Kempten has reacted to the ever more complex challenges in the area of Electronic & Information Technology in internationally operating companies.

The Master's study program takes **three semesters** and is completely taught **in English**. The curriculum is aimed to cover a broad spectrum of topics. You will learn how to operate flexibly in a company with dynamic business requirements; on the other hand you will have the opportunity to work right where challenging and complex topics in electrical engineering and communication technology surface.

The study is designated for German and foreign applicants as well. Foreign students are especially welcomed to our Master's program of "Electrical Engineering" and should always feel encouraged to apply.

The international character of the program, meaning German and foreign students studying side by side, allows our students to hone their social competencies and skills with people of different cultural backgrounds. This adds an extra diversity to the program, which is very highly regarded by international companies.

We have cultivated cooperations and foreign exchanges with about 80 universities around the world and it is intended, to expand the international relations by offering this Master's study.

As a graduate of our **"Master of Engineering"** program you will find open doors worldwide, because aside from the pure technical qualifications, this program will also prepare you for a future leadership position.

Future Perspective and Scope of Work

The large spectrum of study topics enables you to familiarize yourself relatively quickly with any new assignments within the field of electrical and telecommunication engineering but also to dive deeper into specific areas. There are numerous areas for you to work in: research & development as well as production, planning, operation and management.

The degree "M.Eng." may enable you to get a high level employment in governmental organisations. The classic areas in which graduates of this program go on to work in are: energy generation, -transmission, -distribution, and application, electrical drives & automation technology, mechatronics, electronics, micro computer technology, communication technology, micro-waves and high frequency technology just to name a few.

The majority of employment opportunities for Master graduates are in the electrical industry. Electronic products and systems and therefore jobs, are also found in other areas, like mechanical engineering – e.g. the automobile and aircraft industry, power tool industry and robotics etc. – but also in building technology management as well as in the general medicine & hospital area; e.g. a promising discipline AAL (ambient assisted living) is currently being developed.

The title "M. Eng." allows you to apply for a **Ph.D.** program at any German or foreign university.

As a graduate of the Master's program "Electrical Engineering" you have a notably improved competitive advantage over Bachelor graduates. Because of your advanced subject matter expertise along with your flexible field of application, you'll enjoy **tremendous career opportunities**.

Program Outline

The Master's study program "Electrical Engineering" takes three semesters. It consists of two semesters with lectures and practical exercises and a third semester to primarily address your Master Thesis.

The course is mostly application-oriented and very practice related. Through the choice of the **Elective Modules** and the topic of your **Scientific Project** as well as the topic of your **Master Thesis** you can, to a certain extent, specialize in your studies.

The Master Thesis can either be done in a company in cooperation with a professor from the University of Applied Sciences in Kempten or alternatively a professor from a partnering university. It can also be conducted in one of the university's laboratories resp. institutes.

The program is designed in such a way that students, who have completed their Bachelor's respectively Diploma degree at the University of Applied Sciences in Kempten, have the **alternate** opportunity during the 2nd and 3rd semester to complete their studies in Northern Ireland at the **University of Ulster** and will receive a **dual degree**. Concerning this procedure we are looking back at a more than 20 years successful experience.

There are additional agreements on double graduation, e.g. with the Universidad Pontificia Bolivariana (UPB) in Colombia and the Tallinn University of Technology (TUT) in Estonia.

Prerequisites

For a Master's program "Electrical Engineering" at the University of Applied Sciences in Kempten a Bachelor degree in Electrical and Telecommunication Engineering with a minimum grade level of at least "good" (better than 2.6 according to the German marking system) is required. Congener study courses can be accredited on request. Furthermore you will need to demonstrate proficiency of the English language (verbal & written). More details regarding this can be found on our website www.hs-kempten.de.

Semester	3 SS	2 WS	1 SS	2	4	6	8	10	12	14	16	18	20	22	24
Master Thesis	25 CP														
Seminar	5 CP														
Digital Signal Processing		4 SWS / 5 CP													
Advanced Control Systems		4 SWS / 5 CP													
Elective Modules:															
Interface Electronics, Electronics Cooling, Wind Power Systems, Human Resource Management and Leadership,															
Digital System Design, Electronics in Space and on Ground															
(each 4 SWS, 5 CP, total 20 SWS, 25 CP)															
Electrical Drive Systems		4 SWS / 5 CP													
Microelectronics		4 SWS / 5 CP													
Telecommunication Systems		4 SWS / 5 CP													
Power Electronics		4 SWS / 5 CP													
Scientific Project with Seminar															
4 SWS / 15 CP															
6 Modules: 30 CP (ECTS) in total															
30 CP (ECTS) in total															

Abbreviations: SWS = Hours per Week and Semester CP = credit points, ECTS
 SS = Summer Semester, WS = Winter Semester