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Master's degree



MSc Electromobility – ACES

FAU Erlangen-Nürnberg • Erlangen

Overview

Degree	Master of Science
Teaching language	<ul style="list-style-type: none">• English• German
Languages	The programme can be studied completely in English or German.
Full-time / part-time	<ul style="list-style-type: none">• full-time
Programme duration	4 semesters
Beginning	Winter and summer semester
Additional information on beginning, duration and mode of study	Beginning winter semester: 1 October Beginning summer semester: 1 April Full-time study course plan: https://www.aces.study.fau.eu/prospective-students/study-programme/
Application deadline	31 May (estimated) for winter semester 31 October (estimated) for summer semester Please refer to https://www.aces.study.fau.eu/prospective-students/application-for-the-masters-degree-program/
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	Majors (you choose two out of four): <ol style="list-style-type: none">1. AI and Autonomous Driving (Machine Learning, Automatic Control, Image Processing)2. Connectivity (Digital Communications, Communication Systems, Computer Communication, Smart Grids)3. E-Powertrain (Power Electronics, Electrical Drives, Automotive Engineering, Fuel Cells)4. Sustainable Mobility and Production Technology (Resource efficient Production systems,

Course Details

Course organisation	<p>Full-time Master's degree:</p> <p>https://www.aces.study.fau.eu/files/2022/03/master-aces_full-time.pdf</p> <ul style="list-style-type: none"> • M1 Major 1: 25 ECTS • M2 Major 2: 25 ECTS • M3 Elective Modules: 10 ECTS • M4 Soft Skills & Laboratory Training: 2.5 ECTS + 2.5 ECTS • M5 Practical Training: for eight weeks 10 ECTS • M6 Project Thesis with Advanced Seminar: 15 ECTS • M7 Master's Thesis with Advanced Seminar: 30 ECTS <p>Modules/courses must be attended in the first to third semester in order to complete the degree. In the third semester, you should write the project work and take the last courses/modules. The entire fourth semester is required to complete the Master's thesis.</p> <p>» PDF Download</p>
A Diploma supplement will be issued	Yes
International elements	<ul style="list-style-type: none"> • Language training provided
Description of other international elements	Voluntary semesters abroad
Course-specific, integrated German language courses	No
Course-specific, integrated English language courses	No

Costs / Funding

Tuition fees per semester in EUR	None
Semester contribution	FAU does not charge tuition fees. However, each semester students must pay semester fees consisting of student services fees (52 EUR) and a fee for the basic semester ticket (75 EUR).
Costs of living	According to a study by the German National Association for Student Affairs, students in former West Germany who no longer live with their parents have an average amount of more than 930 EUR per month at their disposal. However, monthly expenditures for personal lifestyle vary a lot. The study shows that approx. 25 per cent of the students asked have less than 700 EUR while 10 per cent have more than 1,300 EUR per month. For former West Germany, the study revealed the following details regarding average expenditures:

- Rent, including bills (in the Erlangen-Nuremberg area): 325 EUR (250 to 600 EUR)
- Food: 168 EUR
- Clothing: 42 EUR
- Transport (public transport and/or car): 94 EUR
- Learning materials (depending on the subject): 20 EUR
- Health insurance, doctors, medicine: 80 EUR
- Telecommunications: 31 EUR
- Leisure activities, culture, sports: 61 EUR

Funding opportunities within the university

Yes

Description of the above-mentioned funding opportunities within the university

There is a wide range of scholarships available for outstanding students. In addition to requiring applicants to have excellent grades, most scholarship programmes have additional conditions regarding cultural, political, religious, or social involvement. If you have any questions about the application procedure or selection criteria, you can contact the Student Advice and Career Service (IBZ) or speak directly to FAU's liaison officer for the scholarship organisation you wish to apply to.

<https://www.fau.eu/study/prospective-students/financing-your-studies>

Requirements / Registration

Academic admission requirements

Bachelor's degree in an engineering programme that is close to our Bachelor of Science degree programme Electromobility – ACES (also mechanical, electrical or vehicle/automotive engineering or at least 140 ECTS in one of these programmes)

We strongly recommend applicants from non-EU countries like India, Pakistan, China, etc. to submit the results of an international standard graduate test. This will strongly improve your chances of admission, since only about 10% of our applicants get an admission to our Master's programme. The submission of a standard graduate test makes it much easier for you to show and for us to assess your academic performance.

The following tests are accepted:

- „Graduate Record Examination (GRE)” as “subject test physics“, “subject test mathematics“ or “General Test” (<https://www.ets.org/gre.html>)
- „Graduate Aptitude Test in Engineering“ (GATE) with an engineering test paper (<https://gate2024.iisc.ac.in/>)
- other standard tests will be evaluated by our admission commission

For further information, please refer to https://www.aces.study.fau.eu/prospective-students/application-for-the-masters-degree-program/#collapse_1

Language requirements

Proof of language proficiency: You may study in the Master's programme in English or German. Therefore, international applicants require the following:

1. For studying the Master's degree in English:

- proof of English language skills at the level of at least C1 of the Common European Framework of Reference (CEFR); e.g. IELTS with at least eight points, reference is made to the equivalence table of the FAU Language Center (<https://sz.fau.de/pruefungen/anrechnungen/>).

or

2. For studying the Master's degree in German:

- proof of German language skills at the following level: at least DSH-2 with at least 74% of the achievable points in the written and oral part of the exam

- alternatively, TestDaF with at least four points in each area and five points in at least one area

Application deadline 31 May (estimated) for winter semester
31 October (estimated) for summer semester

Please refer to <https://www.aces.study.fau.eu/prospective-students/application-for-the-masters-degree-program/>

Submit application to <https://www.aces.study.fau.eu/prospective-students/application-for-the-masters-degree-program/>

Services

Possibility of finding part-time employment

According to a study by the German National Association for Student Affairs, around 63 per cent of all "first-time students" have a regular job – and not just during the holidays. On average, they work around eight hours a week for an average wage of 10 EUR per hour. Students can have a "450 EUR job" or work as a student trainee in a company or as a student assistant in the university – both during and outside the lecture period. Information on the legal conditions relating to part-time jobs for students is available in the brochure "Jobben" (part-time jobs) published by the German National Association for Student Affairs. FAU's [job portal](#) is also updated regularly with new advertisements for part-time jobs.

Accommodation

The cities of Erlangen, Fürth, and Nuremberg offer a very good standard of living. They are popular places to live, meaning that accommodation is in high demand but often in short supply. This is particularly the case during the period before the start of a new semester. We therefore recommend that you start looking for accommodation as soon as possible. If you are flexible and also look in the surrounding area, you will have a better chance of finding somewhere affordable to live. The region has an excellent public transport system, so you should not have any problems getting to your place of study or work.

It is worth checking the available accommodation on the Internet every day, as new accommodation becomes available on a day-to-day basis. It pays to be flexible when it comes to the price, location, and available facilities of your accommodation.

Student Services Erlangen-Nürnberg runs its own [student accommodation](#) in Erlangen and Nuremberg. You will be informed about how to apply for a room in Student Services accommodation while you are in the process of applying to be admitted to FAU.

Career advisory service Career service of the Faculty of Engineering

FAU Erlangen-Nürnberg

Founded in 1743, FAU has a rich history. It is a strong research university with an international perspective and one of the largest universities in Germany with 39,657 students, [272 degree programmes](#), 4,000 academic staff (including over 624 professors), [243 million EUR third-party funding](#), and partnerships with universities all over the world. Teaching at the university is closely linked to research and focuses on training students in both theory and practice to enable them to think critically and work independently. The research itself also strikes the perfect balance between a theoretical approach and practical application.

FAU's outstanding research and teaching is reflected in top positions in both [national and international rankings](#) as well as the high

amount of [DFG funding](#) that its researchers are able to secure.



University location

FAU's two main sites, the cities of Erlangen and Nuremberg, are located at the heart of the Nuremberg Metropolitan Region. Both Erlangen and Nuremberg have their own unique charms. Erlangen is a city of 100,000 inhabitants, was the former home of the Huguenots, and it is a key location for Siemens. Nuremberg is a city with a metropolitan flair and a population of half a million. The opera, theatre, and museums, along with a lively pub scene and nightlife, offer plenty of opportunities to relax after a day in the lecture theatre, lab, or library. The highlights of the cultural calendar in Erlangen include the "Hörkunstfestival" (acoustic art festival), International Comic Salon, "figuren.theater.festival" (puppet theatre festival), "Poetenfest" (poetry festival), and the "ARENA... of the young arts" theatre and performance festival. A wide range of cultural institutions open their doors to visitors during the Blue Night in Nuremberg, and once every two years, the Long Night of Sciences gives the public a chance to take a look inside research institutions in Erlangen, Nuremberg, and Fürth. In summary, the mixture of academia, innovative companies, art, and culture makes the region the perfect place for creative minds. There is also plenty on offer for keen athletes and nature lovers. Fränkische Schweiz, a paradise for climbers and walkers, is located to the north of Erlangen and is at FAU's doorstep. Water sports enthusiasts will love the Franconian lakes and the university's water sports centre, which is located just south of Nuremberg.

Contact

[FAU Erlangen-Nürnberg](#)

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 https://www.instagram.com/uni_fau/

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www.gate-germany.de

Disclaimer

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