Deutscher Akademischer Austauschdienst
German Academic Exchange Service

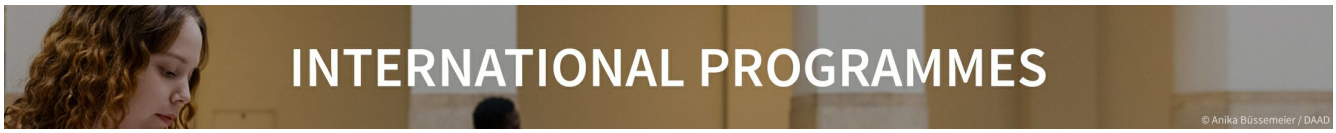
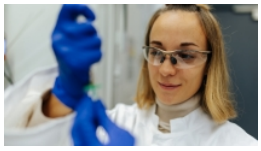


Table of Contents

Master's degree

Clean Energy Processes

FAU Erlangen-Nürnberg • Erlangen


Overview

Degree	Master of Science in Clean Energy Processes
Teaching language	• English
Languages	Courses are held in English only. Optional courses in German as a foreign language are offered.
Programme duration	4 semesters
Beginning	Winter and summer semester
Additional information on beginning, duration and mode of study	The Welcome Week for international students takes place at the beginning of October or at the beginning of April of each semester.
Application deadline	Winter semester: • Non-EU applicants: 31 May • EU applicants: 15 July Summer semester: • Non-EU applicants: 30 November • EU applicants: 15 January Please see the CEP website: https://www.cep.study.fau.eu/.
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	Do you want to make your own contribution to an environmentally-friendly future? Do you want to learn from specialists doing the most innovative research in their respective field of engineering? Then the CEP programme is just right for you!

At a glance

The research oriented Master's degree programme in Clean Energy Processes (CEP) is designed to prepare graduates to work as engineers in industry or academia with regards to clean energy processes while focussing on energy technology and energy systems. Students are enabled to become experts in their chosen specialisations.

CEP programme flyer

Course outline

The Master's programme in Clean Energy Processes provides graduates with the skills required to successfully address and work on answers for **current and future questions about energy systems and energy conversion** and use of energy in all types of industry. The intensive study of these topics together with the associated laboratory internships, complementary modules in energy technology, process engineering, plant and equipment engineering with a view on socio-economic aspects allows students to gain a profound knowledge of clean energy processes. Additionally, students can benefit from the proximity to **cutting-edge research** conducted by the Helmholtz Institute for Renewable Energy (HI-ERN) with its focus on sustainable, and cost-effective utilisation of renewable energy. The programme will therefore provide students with broad career opportunities in national or international industry as well as in academia.

Course content

The study plan includes:

- Specialisation modules for the two specialisations energy technologies and energy systems
- Compulsory and elective modules (for example, energy technology, process engineering, chemical engineering, plant and equipment engineering, material sciences and economics)
- Seminars
- Laboratory courses
- Internship
- Master's thesis

Scientific Environment

The CEP programme is embedded in the Faculty of Engineering of FAU and works in close proximity to local research centres such as the Helmholtz Institute for Renewable Energy, the Energy Campus Nürnberg, the Fraunhofer Institute for Integrated Circuits and the Bavarian Center for Applied Energy Research e.V., thus creating a unique environment for research and innovation.

Course Details

Course organisation

Programme Structure

The CEP programme is designed as a**two-year Master's course** of study that allows students to specialise in either energy technologies or energy systems. CEP is complemented by specialisation modules with included laboratory courses. Compulsory and elective modules are offered in energy technology, process engineering, chemical engineering, plant and equipment engineering, material sciences and economics. Other skills acquired are soft skills, advanced scientific skills, and the possibility to work in projects related to research at the involved institutes as well as an integrated internship in either research or industry. The individual modules are described in detail on the CEP website.

Goal of the English language Master's programme in Clean Energy Processes

The innovative programme is enabling students to increase their knowledge in chemical engineering, process engineering as well as other related engineering disciplines like electrical engineering and material sciences while allowing students to choose a specialisation in energy systems or energy technology.

	FAU's closeness to the leading research hub in renewable energies and close ties to industry enable students to perfectly prepare for demanding and meaningful tasks in either research or industry.
A Diploma supplement will be issued	Yes
International elements	• International guest lecturers • Language training provided • Training in intercultural skills • Content-related regional focus • International comparisons and thematic reference to the international context • Integrated/optional study abroad unit(s)
Description of other international elements	• Trainings in intercultural communication and language courses as a preparation before and during the studies • Invited talks by national and international specialists of their field of specialisation each semester during the CBI Colloquium
Integrated/optional study abroad unit(s)	Stays abroad at one of FAU's 500 partner universities encouraged
Integrated internships	Students of CEP are required to complete a 12-week internship in industry or at a scientific institution. The programme has close ties to both research and industry. Internships undertaken prior to the Master's programme may be approved on a case-by-case basis.
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 of 67 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	**Application and admission requirements** • An undergraduate degree, BSc in a similar study programme ◦ For instance chemical engineering, energy technology or similar programmes. • Proficiency of the English language on level B2 of the Common European Framework of Reference for Languages (CEFR), see below for details **Prerequisites** • Expected Bachelor's modules or majors: chemical engineering, process engineering, energy technology or related subjects
Language requirements	Applicants must be fluent in English on level B2 according to the Common European Framework of References for languages (CEFR). Both TOEFL (iBT 85 or equivalent) and IELTS (band 5.5) can be accepted as a proof of language proficiency. An exemption only applies to students whose undergraduate degree has been conducted entirely in English (certificate). All courses are taught in English and do not require prior knowledge of the German language. Students can participate in intensive German language courses to prepare for a career in Germany.
Application deadline	Winter semester: • Non-EU applicants: 31 May • EU applicants: 15 July Summer semester: • Non-EU applicants: 30 November • EU applicants: 15 January Please see the CEP website: https://www.cep.study.fau.eu/.
Submit application to	Please see the information provided on the CEP website.

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 12 EUR per hour. Students can have a "520-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 "Jobben" brochure ("Jobben" refers to 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 ownstudent 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: • personal consultation • check of application documents (CV and cover letter) • mock job interviews • seminars on job application, job interviews and entry on the German labour market • frequent career events with partner companies, during which students can get in touch with Germany's leading employers More information on the services offered by the student career and advice service can be found on the website.
Support for international students and doctoral candidates	• Welcome event • Buddy programme • Specialist counselling • Cultural and linguistic preparation • Visa matters • Accompanying programme
General services and support for international students and doctoral candidates	• Student Advice and Career Service • International Office • Student Advice Centre at Faculty of Engineering • CEP Information sessions and consultation hours

©FAU

Anushi T.
Master's student

The professors are extremely helpful, and they have amplified my knowledge, not only by teaching, but also by sharing their rich professional and practical experience they acquired while working on various projects worldwide. The job opportunities are abundant after completing the course, and we have frequent get-togethers during which we meet professors and new people, which helps to build a professional and personal network.

Master Degree Programme Clean Energy Processes

Informational video on the Master's programme in Clean Energy Processes

» more:
https://www.fau.tv/clip/id/32733

FAU Erlangen-Nürnberg

Students in a laboratory

© Image: Ahmed Mahmoud

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 bothnational and international rankingsas 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
Chemical and Biological Engineering

Jasmin Singh

Immerwahrstr. 2a
91058 Erlangen

Tel. +49 91318520621
study-cep@fau.de
Course website: https://www.cep.study.fau.eu/master-m-sc-clean-energy-processes/

https://www.facebook.com/fauenglish/
https://twitter.com/UniFAU
https://www.linkedin.com/company/fau-erlangen-n%C3%BCrnberg/
https://www.instagram.com/uni_fau/
https://www.youtube.com/channel/UCC1MMvvHuJHvxKGiUCRyFvA

Last update 21.12.2024 11:49:42

International Programmes in Germany - Database

www.daad.de/international-programmes
www.daad.de/sommerkurse

Editor
DAAD - Deutscher Akademischer Austauschdienst e.V.
German Academic Exchange Service
Section K23 – Information on Studying in Germany
Kennedyallee 50
D-53175 Bonn
www.daad.de

GATE-Germany
Consortium for International Higher Education Marketing
www.gate-germany.de

The publication is funded by the German Federal Ministry of Education and Research and by contributions of the participating German institutions of higher education.