



Deutscher Akademischer Austauschdienst  
German Academic Exchange Service



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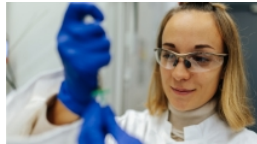
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# Bachelor's degree



## Clean Energy Processes

FAU Erlangen-Nürnberg • Erlangen



## Overview

Degree	Bachelor of Science in Clean Energy Processes
Teaching language	<ul style="list-style-type: none"><li>English</li></ul>
Languages	Courses are held in English only. Optional courses in German as a foreign language are offered.
Programme duration	6 semesters
Beginning	Winter semester
Additional information on beginning, duration and mode of study	The Welcome Week for international students is held at the beginning of October of each year.
Application deadline	<ul style="list-style-type: none"><li>International applicants: 15 July</li><li>German applicants: 31 August</li></ul> <p>Please see the application deadlines here: <a href="https://www.cep.study.fau.eu/">https://www.cep.study.fau.eu/</a></p>
Tuition fees per semester in EUR	None
Joint degree / double degree programme	No
Description/content	<p>As a graduate of CEP, you will be able to do the following:</p> <ul style="list-style-type: none"><li>work as an engineer on the highest scientific level</li><li>develop and improve technologies for <b>renewable energy</b> and energy systems</li><li>develop renewable processes in all types of industry, especially chemical industry</li><li>assess and incorporate socio-economic, ecological and legal factors</li></ul> <p><b>Course outline</b></p> <p>The innovative programme combines fundamentals in <b>engineering and sciences</b> as well as the basics in economics in order to be able to proactively shape tomorrow's future with regards to <b>clean energy</b> – its conversion, use and application. FAU's proximity to the leading research hub in renewable energies and close ties to industry enable students to perfectly prepare for demanding</p>

and meaningful tasks in either research or industry.

Graduates of the programme stand out due to their extensive knowledge of innovative technologies for renewable new energy systems and energy conversion in all types of industry. They can significantly participate in the successful introduction of new sustainable energy systems and energy processes and adequately evaluate **sustainability** on a global scale.

[CEP programme flyer](#)

#### Course content

The BSc CEP programme provides students with a comprehensive understanding in clean energy processes.

The study plan includes:

- basic science (e.g. mathematics, physics)
- basic engineering (e.g. foundations of chemical reaction engineering, thermodynamics, heat and mass transfer, fluid dynamics)
- basic economics
- subject-specific basics (e.g. renewable energies, fundamentals of energy resources, decentralised energy supply)
- active project
- two elective modules
- Bachelor'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 **three-year Bachelor's course** of study. The course provides students with the fundamentals in sciences, engineering and economics as well as subject-specific basics in renewable energies, chemical engineering and fundamentals of energy resources. The curriculum is complemented by soft skills, scientific skills, and an active project, in which students gain first-hand experience with research at the involved institutes.

The individual modules can be found in the [CEP curriculum](#).

#### Goal of the English language Bachelor's programme Clean Energy Processes

The innovative programme combines fundamentals in engineering and sciences as well as the basics in economics in order to be able to proactively shape tomorrow's future with regards to clean energy – its conversion, use and application in all types of industry.

FAU's proximity 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

<b>Description of other international elements</b>	<ul style="list-style-type: none"> <li>• Trainings in intercultural communication and language courses as a preparation before and during the studies</li> <li>• Stays abroad at one of FAU's 500 partner universities encouraged</li> <li>• Talks by national and international specialists of their field of specialisation each semester during the CBI Colloquium</li> </ul>
<b>Diverse intercultural background of students</b>	Our students stem from over 25 nations with diverse cultural backgrounds, allowing students to study and work in multicultural teams and study groups.
<b>Course-specific, integrated German language courses</b>	No
<b>Course-specific, integrated English language courses</b>	No

## Costs / Funding

<b>Tuition fees per semester in EUR</b>	None
<b>Semester contribution</b>	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

<b>Funding opportunities within the university</b>	Yes
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**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

Firstly, international applicants need to check whether they can access university in Germany with their previous education. International applicants thus are required to possess a **university entrance qualification allowing them to study at university in Germany**. International applicants often need to study one year at university in their home country in a subject related to their projected field of studies.

To check whether their individual education qualifies them to study in a German university, applicants need to enter their individual educational backgrounds into the DAAD database: [www.daad.de/en/study-and-research-in-germany/plan-your-studies/admission-database/](http://www.daad.de/en/study-and-research-in-germany/plan-your-studies/admission-database/). General information on the types of international university entrance qualifications and the type of access to university can be found [here](#).

Secondly, a valid **proof of language proficiency** is required in order to enrol in this programme. Please find the details below.

## Language requirements

English language proficiency on level B2 (CEFR) is required.

The following can be accepted as proof of language proficiency:

- IELTS (5.0)
- TOEFL (80 iBT, 210 CBT, 547 PBT)
- For additional certificates, please see: [sz.fau.eu/examinations/accreditation/](http://sz.fau.eu/examinations/accreditation/).

The language of previous education cannot be taken into account.

## Application deadline

- International applicants: 15 July
- German applicants: 31 August

Please see the application deadlines here: <https://www.cep.study.fau.eu/>

## Submit application to

Please see the information 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 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:

- 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 Career Service can be found on the [website](#).

#### Support for international students and doctoral candidates

- Welcome event
- Specialist counselling
- Cultural and linguistic preparation
- Buddy programme
- 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



©Image: FAU/Matilda R.

**Matilda R.**  
Bachelor's student

The best thing about the CEP programme is that right at the beginning, you specialise in the field of renewable energies which combines many scientific disciplines. The lectures also provide insight into the latest research – from organic solar cells to LOHC technologies for the storage of hydrogen. As a student, you strongly benefit from the intensive exchange with the lecturers and professors.



## The Department of Chemical and Biological Engineering at FAU

Informational video about the  
Department of Chemical and  
Biological Engineering at FAU

» more:  
<https://www.youtube.com/watch?v=HlyDCppD3ts>

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# FAU Erlangen-Nürnberg

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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 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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 Course website: <https://www.cep.study.fau.eu/bachelor-b-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.instagram.com/uni_fau/)

 <https://www.youtube.com/channel/UCC1MMvvHuJHvxKGiUCRyFvA>

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# International Programmes in Germany - Database

[www.daad.de/international-programmes](http://www.daad.de/international-programmes)

[www.daad.de/sommerkurse](http://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](http://www.daad.de)

## GATE-Germany

Consortium for International Higher Education Marketing

[www.gate-germany.de](http://www.gate-germany.de)

## Disclaimer

The data used for this database was collected and analysed in good faith and with due diligence. The DAAD and the Content5 AG accept no liability for the correctness of the data contained in the "International Programmes in Germany" and "Language and Short Courses in Germany".

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Federal Ministry  
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and Research