





Communication and Information Engineering, B.Sc. in English

Kamp-Lintfort Campus
Faculty of Communication and Environment

Communication and Information Engineering, B.Sc.

Fact File

Campus

Kamp-Lintfort

Begin

Winter semester

Duration

7 semesters studying full time

Degree

Bachelor of Science, B.Sc.

Language

English

Preparatory Internship

Mandatory 8-week internship in a related field. This must be completed before the start of the 4^{th} semester. You can also do this internship in your home country before applying.

Work Placement...

20 weeks at an institution, organisation or company in Germany or abroad in the $6^{\text{th}}\,\text{semester}$

...or Study Abroad

20 weeks of university studies abroad in the 6th semester

Thesis

Completed in the 7th semester

Rhine-Waal University of Applied Sciences

Would you like to study in a friendly atmosphere at a vibrant, internationally-focused university, where you'll find small classes, modern labs and staff dedicated to developing your future employability?

If so, then Rhine-Waal University of Applied Sciences is the perfect place for you.

Our university has more than 30 undergraduate and postgraduate degree programmes with innovative and interdisciplinary curricula designed to train you for future careers in the natural sciences, engineering or the social sciences. We are based in Germany, but most of our degree programmes are taught in English, which draws students from around the world – over 100 different nations are represented at our university.

Rhine-Waal University of Applied Sciences has two campuses, in Kleve and Kamp-Lintfort, halfway between Amsterdam and Cologne in Germany's picturesque Lower Rhine region. Each campus features state-of-the-art classrooms and laboratories, a university library, a language centre and a canteen. Our many cooperative agreements with leading international businesses and research institutions will greatly enhance your internship and employment opportunities as well.

So, why not start building your future career with us?

We look forward to welcoming you here at Rhine-Waal University of Applied Sciences.

Communication and Information Engineering

Everywhere we go, we are surrounded by technical systems so unobtrusive and natural that we rarely notice them anymore. They have become ingrained parts of our lives, seamlessly blending into the world around us. The applications for these technical systems are as diverse as they are innovative: mobile phones, entertainment devices, technical healthcare solutions (such as health monitoring devices), systems for managing the modern household, traffic monitoring and control systems, automated driving assistance and safety systems (airbags, ESP, ABS) and industrial production control systems ('smart' factories, industry 4.0) are just a few noteworthy examples.

Though they come in all shapes and sizes, these systems all share a common basis: a highly complex interaction between hardware and software solutions. They are capable of collecting data from their surroundings via sensors, processing this data, exchanging it with other systems and ultimately deriving decisions and actions from it. Oftentimes this complex process is broken down into smaller parts, for example with a network of less expensive/efficient devices gathering large amounts of data, which is sent to powerful central servers for further analytical and decision-making processes.

New applications for these kinds of systems are developed on a near daily basis, which in turn pushes the boundaries for the sensor technology, applications, networks and software these systems rely on. Does this kind of innovative, cutting edge technology interest you? Do you enjoy breaking down and solving difficult technical problems? Then our Communication and Information Engineering programme is right for you. Our goal is to train future engineers who can thrive in the many exciting and future-oriented areas of engineering systems:

from sensor technology and the pre-processing of information; to collecting, transferring and distributing data; to automatic data processing and analysis. We will impart to you the necessary skills and expertise from electrical engineering, signal processing and computer science, so that you graduate with a versatile technical background for your future career.

With this type of training you will be prepared for both current and future industry challenges, ready to seize new opportunities and play a role in shaping the future of technology. This degree programme was conceptually designed to provide a solid and versatile technical background that not only stresses practical relevance, but also employs an interdisciplinary, application-oriented approach with a strong international current, in part due to the use of English as the language of instruction, for example.

Course structure

In your first four semesters you will acquire sound knowledge of the fundamentals of electrical engineering and computer science, enhance your subject knowledge in mathematics and be introduced to scientific research methods.

The following semesters will then provide in-depth study. During this time you will also be able to more sharply define your knowledge by choosing elective courses which suit your interests and career plans. The range of electives includes areas such as smart environments, advanced sensor technology, computer security and even business administration. An interdisciplinary project will allow you to carry out an in-depth investigation of a topic of your choosing and will give you the chance to hone your individual strengths and areas of specialism.

In the 6th semester you will have the choice of either studying abroad or doing a practical semester to accumulate valuable work experience that sets you apart from the crowd and contributes to your overall personal and academic development.

In the 7^{th} semester you will finish your studies by submitting your bachelor's thesis, followed by holding a presentation and an open discussion on your research.

Career paths

Distributed systems are finding their way into more and more fields of application. This is fuelling an acute demand for graduate engineers, particularly for those who are able to design, develop, implement, maintain and adapt these systems according to different applications and parameters.

With this broad and interdisciplinary degree you will be highly sought-after and well suited for an international career in a range of fields, including soft- and hardware development, project management, automation, innovation management and consultancy.



Entry requirements

Rhine-Waal University of Applied Sciences welcomes applications from nationals of all countries. Please see our website for general admission requirements.

Other requirements for Communication and Information Engineering, B.Sc.:

- A sufficient level of English language proficiency (CEFR level B2 or better).
- Completion of an 8-week internship before the start of the 4th semester. You can also do this internship in your home country before applying to Rhine-Waal University of Applied Sciences.
- Interest in technical problems and innovative technologies.

Tuition and costs

Rhine-Waal does not charge tuition fees. Students are merely obliged to pay a nominal administration fee each semester that allows free travel on most public transport in the state of North Rhine-Westphalia, where we are located.

The cost of living in Germany is low compared with many places in Europe. Plan on around €800 per month for expenses, or approximately €5,000 per semester.

When and how to apply

Our undergraduate programmes always start in the winter semester. For application dates and deadlines, please visit www.hochschule-rhein-waal.de.

International applicants must apply through 'uni-assist', a professional credential evaluation service in Germany, unless they have a German entry qualification to higher education. Please see our website for details.

Need help or advice? Contact us!

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