Why study systems engineering?

- **Hands-on learning that spans multiple disciplines:** Studying systems engineering means combining engineering expertise with management skills while working on real-world projects. It's the ideal way to prepare for the challenges of your future career.
- **Excellent career prospects:** A degree in systems engineering opens numerous doors – from project management in industry to research and development in high-tech companies.
- **Help shape the future!** Electromobility, renewable energy or smart systems – as a systems engineer you'll be directly involved with developing the technologies of the future.

And after graduating?

There's no shortage of options...

From small local start-ups to globally active companies, there is high demand for engineers with a broad skill set and cross-disciplinary expertise. Energy supply, digitalization, production, mobility and medical technology are just a few of the sectors looking for experts like you.

From idea ... to product ... to system

Master's degree programme in systems engineering

After completing your Bachelor's degree, you can enrol in the four-semester Master's programme in systems engineering at Saarland University. Our M.Sc. programme equips you for a successful career in industry or for continuing your academic journey through a PhD or research role.

Contact and further information:

Programme coordinator:
Carine Klap
Tel.: +49 681 302-4946
studium-se@uni-saarland.de

Get in touch with students already on the programme via the engineering department's student organization
ing@fs.uni-saarland.de

www.se.uni-saarland.de

UNIVERSITÄT DES SAARLANDES

SYSTEMS ENGINEERING

Engineering sciences at Saarland University

SYSTEMS ENGINEERING

UNIVERSITÄT DES SAARLANDES

Systems Engineering Bachelor of Science

What is systems engineering?

Systems engineering holds the key to solving the complex challenges of today's world. This forward-thinking programme combines **mechanical, electrical and information engineering** with essential elements of **management and organization**. You'll gain the skills to design, develop and optimize complex technical systems and processes – from start to finish. With their ability to deliver innovative, integrated solutions, systems engineers are in high demand across industries looking to solve tomorrow's challenges.

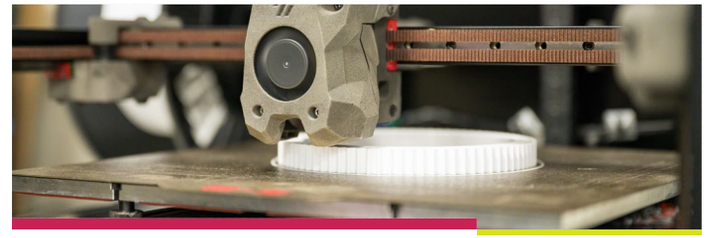
Key facts:

- Mode of study: Full-time or part-time
- Standard period of study 6 semesters
- Start of programme: Winter semester (recommended)
- Application period (winter semester): until the end of September
- No admission restrictions
- Language: German
- ECTS credits: 180

Will I get to work hands-on during the programme?

Absolutely. Throughout the programme, you'll apply your engineering skills in integrated practical projects and internships, and you'll have the opportunity to work with a research team. At Saarland University, you can also study systems engineering as a cooperative programme that combines academic study with on-the-job training at an industry partner.

The future is in your hands!



Programme structure

In the first four semesters of the B.Sc. programme, you 'll study core engineering principles. After that, you can either continue with a broad-based curriculum or choose one of four specializations:

Area of specialization

Electrical engineering

Focuses on complex electrical and electronic systems such as circuit design and microelectronics – including hardware-level programming.

Mechanical engineering

Covers the design, manufacturing and functioning of mechanical systems, including robots and vehicles.

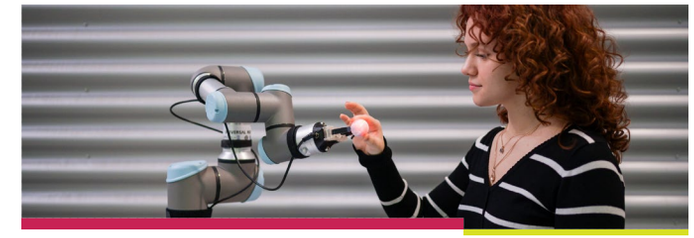
Integrated systems

Explores smart material-based actuators and sensors, as well as control and automation technologies.

Sustainable engineering

Addresses topics like energy systems, recycling technologies, and sustainable materials – allowing you to acquire specialist knowledge in the field of sustainability.

Systems Engineering: Where ideas become impact



Is systems engineering the right fit for you?

If you're curious about technical systems, enjoy maths and science, like digging into how things work and love finding creative solutions to complex problems, then systems engineering is made for you!

If you're not fully confident in maths or physics, you can take a preparatory course to refresh your knowledge and brush up your skills before starting the programme.

Before you begin the B.Sc. programme, you will need to have completed an industrial internship lasting at least eight weeks.

If needed, you can also complete the internship during your studies.

Why choose Saarland University?

- Excellent student support throughout the programme
- Opportunities to finance your studies through student assistantships
- Study abroad options, international partnerships and double-degree programmes
- Campus university in a woodland setting close to the city centre
- Strong links to regional businesses and industry

Design tomorrow – by engineering it today!