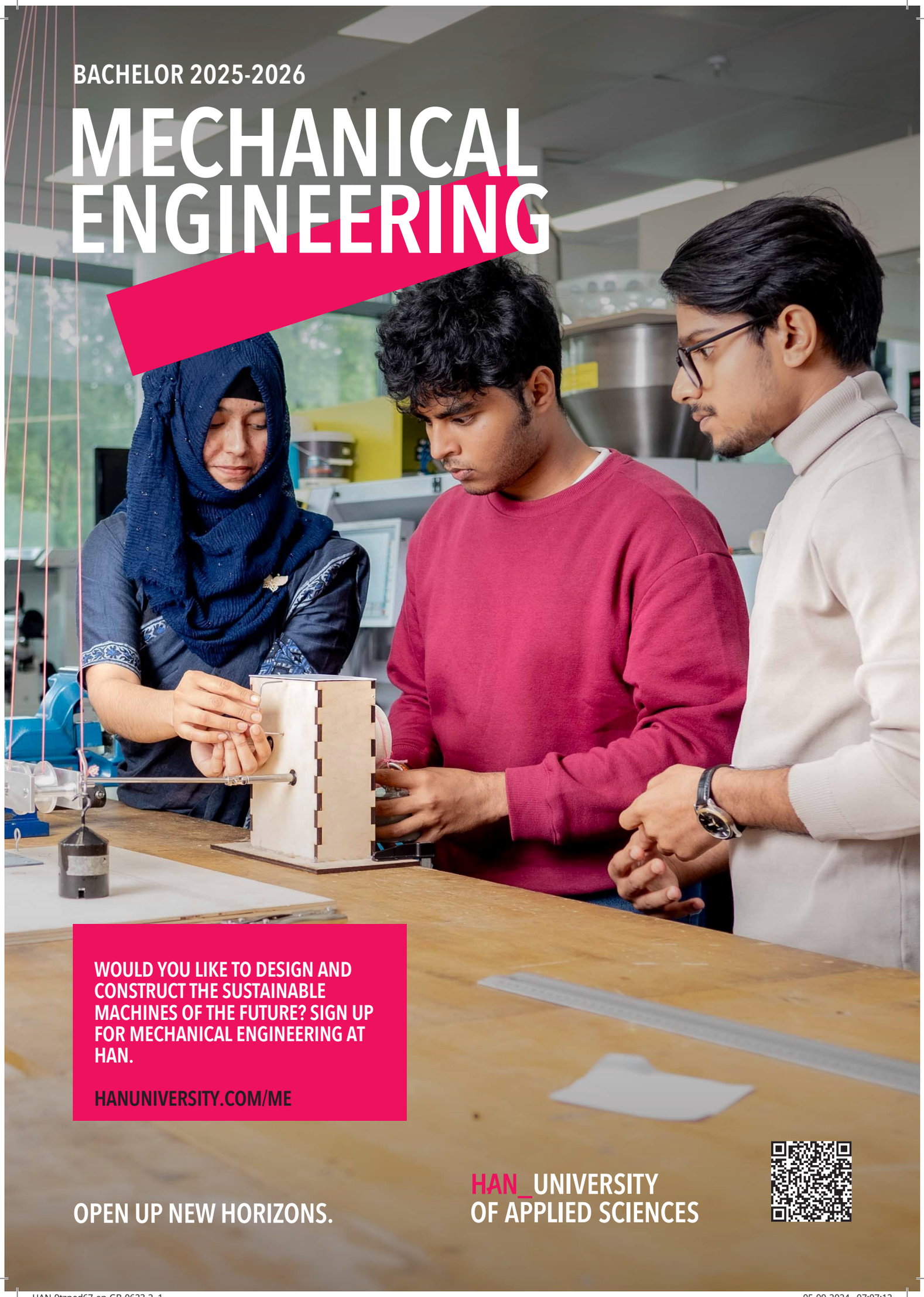
BACHELOR 2025-2026

MECHANICAL ENGINEERING



WOULD YOU LIKE TO DESIGN AND CONSTRUCT THE SUSTAINABLE MACHINES OF THE FUTURE? SIGN UP FOR MECHANICAL ENGINEERING AT HAN.

HANUNIVERSITY.COM/ME

OPEN UP NEW HORIZONS.

HAN_UNIVERSITY OF APPLIED SCIENCES

PROFESSION

The engineering profession has many faces. You could be designing roller coasters for amusement parks. Creating installations for a complicated manufacturing process. Or re-designing powertrains to run on biofuel. It's all possible with a mechanical engineering degree.

Learn how to use technology to increase machine performance parameters. In anything from huge cranes to the smallest micromechanical applications in healthcare. Develop your designing skills to let energy systems run on the smallest amount of energy possible. Or to run on renewable energy. Apart from the energy side of things? You'll dive into steering and control, cost-efficient design and human-machine interfaces. In short, you're choosing a broad, multidisciplinary field.

JOBS

Choose from a wide range of positions. In some jobs you can get your hands dirty and in others you can keep them clean in the CAD design studio. What appeals to you?

With this degree, you can get a job as:

- Constructional Engineer
- Product Designer
- Energy Systems Engineer
- Product and Service Engineer
- Project Leader
- Production Manager
- Sales Engineer

A GOOD MATCH?

- Do you like taking things apart to discover how they work?
- Do you enjoy repairing things?
- Are you able to solve problems in mathematics and physics?
- Are you eager to learn about new technologies?
- Do you have a good feel for trends in user-friendly technology?
- Are you interested in mechanics and sustainable energy applications?
- Do you like making sketches of designs?

YES? Then the program is a good match for you!

PROGRAM IN BRIEF

THEORY AND PRACTICE

Applying theory in practice is crucial for 2 reasons. First, it helps you understand complex ideas. Second, it gives you valuable practical experience. That's why already in the 1st year you start working on design projects in small groups. Take the principles of construction. First you learn the theory, then you put it into practice. How? By creating a windmill, a wind-driven vehicle or a healthcare application. Later in the program you work on more complex, real-life projects in engineering companies. Projects with an international dimension. That could be a heat pump and thermal energy system design. An industrial transport application. Or a machine redesign.

PROGRAM OVERVIEW

1st year

- Mathematics
- Statics, Dynamics, Mechanics of Materials
- Constructional Components
- Materials Science and Engineering
- Production Techniques
- 3D Computer Aided Design
- Project Work, Workshop Production
- Thermodynamics, Fluid dynamics
- Energy Systems Engineering
- Sustainable Energy Techniques
- Electrical Engineering
- Programmable Logic Controllers
- Research Skills
- Professional Skills

2nd year

- Dynamics
- Additive Manufacturing
- Constructional Principles
- Design and Analysis Techniques
- Finite Elements Method and Motion
- Motors and Drives
- PLC and LabVIEW Programming
- Advanced Mathematics
- Law and Regulations
- Combustion Principles
- Air Conditioning Techniques
- Solar and Wind Energy
- Systems Modeling
- Multidisciplinary Projects

3rd year

- Internship Projects
- Modeling and Simulation
- Integral Design
- Design Techniques for a Production Facility
- Smart Production, Internet of Things
- Capita Selecta Mechanical Engineering
- Product Optimization
- Team Management and Leadership Skills

4th year

- Minor Exchange
- Graduation Project (mostly within an international company)

BUILD YOUR PROFESSIONAL EXPERIENCE

Professional experience is key to your success on the job market. That's why you go on an internship in your 3rd year. You also get to tackle a real issue for a company in your 4th year: your graduation project. Where you'll go? HAN works closely with a range of international companies. They regularly offer internships and graduation projects. Companies like Marel, Mars, Festo, DAF, Scania, NXP, ASML, Besi, Nuon, Heinz-Kraft and Bosch. Or get a position at one of our research groups.

WHY STUDY MECHANICAL ENGINEERING AT HAN?

Extensive project experience
Put advanced design and computation theory into practice in loads of exciting realistic mechanical engineering projects. Co-operate with businesses in multi-disciplinary student teams. Get intensive coaching to prepare you for hands-on work in businesses.

Easy transfer to a Master in Engineering
Researchers, industry and staff work together closely at HAN. Want to continue studying after your bachelor degree? Go on with the Master in Engineering Systems at HAN.

Leading companies want our graduates
Our qualified graduates are in demand at leading international companies, like Bosch, Philips and Heinz-Kraft.

Professional learning community
Staff and students, as well as business R&D sharing knowledge, projects and exchange. Learning from each other in a vibrant setting.

MASTERS DEGREE?

Want to continue studying so you can get a job with more responsibility? Earn your master degree at HAN as well. Choose one of the 5 tracks of the Master in Engineering Systems:

- Automotive Systems
- Control Systems
- Embedded Systems
- Lean Engineering
- Sustainable Energy

STUDENT LAB FACILITIES

At HAN you have access to a fully-equipped workshop with extensive lab facilities. Practice essential techniques, like bending, cutting and welding. Or more advanced techniques, like computer numerical control (CNC) machining and 3D-printing. At the materials lab you can conduct a stress-strain test, measure roughness or do a structure analysis. The control systems lab gives you access to pneumatics and software for industrial automation applications. And for measurements on cooling or heating systems you can use the energy systems lab.

ADMISSION REQUIREMENTS

→ Diploma of secondary education with sufficient scores in Mathematics and Physics
→ Grade list: all high school years (if diploma is not yet obtained).
→ Fluency in English:

- IELTS 6.0 or higher
- TOEFL 80 (internet-based)
- Cambridge certificate: FCE Grade C (minimum score 169 / CAE / CPE)

hanuniversity.com/admission

CREDITS AND STUDY LOAD

HAN uses the European Credit Transfer System (ECTS). It's the standard for higher education across Europe. When you pass your exams or assignments, you receive credits. Credits are based on study load:
→ 1 ECTS = 28 hours of study

How many credits do you get in 1 academic year?
→ 60 ECTS credits = 1,680 hours of study

In case you don't gain all 60 credits in your 1st year because you failed one subject or fell behind in a project? That's OK. Our flexible program allows you opportunities to catch up later. The Mechanical Engineering program sets a minimum of 45 credits to still continue the program to 2nd year.

The program has many opportunities for anyone with a hands on mentality to engineering. During my time here, I've worked on projects that are meaningful and useful for different clients. The practical approach is accompanied and complemented by very useful theory.

JUAN ANDRÉS BETANCUR RANGEL/ COLOMBIAN STUDENT

OPEN DAYS

Interested in Mechanical Engineering? Join one of our Online Open Days in November, January or March. Talk to our students. Ask all your questions. Get a tour through our campuses and much more!

hanuniversity.com/openday

NEXT STEPS IN ORIENTATION

Interested in studying at HAN University of Applied Sciences? Want to find out more first? Come and meet us! Either online or in person. Here's how you can meet our lecturers, students and alumni:

- Open Days
- Education Fairs
- Webinars
- Meet 1:1
- Student for a Day
- Sample Lecture

hanuniversity.com/meetus

APPLICATION PROCEDURE

Step 1
Apply on Studielink.nl, the central online application tool for higher education in the Netherlands.

Step 2
Upload the necessary documents. You can see your application status and find the required documents on My Application.

Step 3
You can participate in Matching to check whether the program is a good match for you.

Step 4
Find out whether you've been accepted. You'll be informed about the outcome of your application by mail.

Step 5
Admitted to the program? Paid the tuition fees? You're officially a HAN student!

IN SHORT

Location
Arnhem

Language
English

Program duration
4 years

Program start
September

Study load per week
Contact hours (online or offline): 20
Study hours: 20

Division
Theory: 50%
Practice: 40%
Study coaching: 10%

Degree
Bachelor of Science

Accreditation
Accredited by the Accreditation Organisation of the Netherlands and Flanders (NVAO)

OPEN UP NEW HORIZONS.

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QUESTIONS?
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