Got your sights set on an international career?

International Degree Courses 2018-2019

**Bachelors**
- Automotive Engineering
- Electrical and Electronic Engineering
- Life Sciences
- Communication
- International Business
  - Finance
  - Management
  - Marketing & Sales
  - Supply Chain Management

**Masters**
- Automotive Systems
- Control Systems Engineering
- Molecular Life Sciences
Got your sights set on an international career?

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Inspiring environment. Innovative and skilled professional staff. International student body. These are just some of the ingredients that make up HAN University of Applied Sciences in the Netherlands.

We make it our business to offer higher education of an outstanding quality to students across the globe. It is our goal to prepare each of our students to meet the unique challenges found in today’s working world. Our skilled professionals accomplish this by combining practical education methods with specialised, internationally focused teaching.

One of the key benefits of our courses is that we fully support our students’ development, knowledge and expertise by offering them a global perspective. Our approach is to weave international business practices into our teaching activities. That is why we attract international staff and students to our institution, making our campuses truly diverse environments.
Located in the historic eastern Dutch cities of Arnhem and Nijmegen, the campuses of HAN University of Applied Sciences offer outstanding professional courses to over 33,000 students. HAN has even been ranked top provider of Masters courses in the Netherlands. What makes our education so unique? Our courses combine a solid theoretical basis with practical application in the field so that students are well positioned to enter the job market as soon as they graduate. All courses at HAN University of Applied Sciences are accredited by the Dutch Ministry of Education and the Accreditation Organisation of the Netherlands and Flanders (NVAO).

Study & the Netherlands
Whether you call it Holland or the Netherlands, it is the chosen study destination for over 112,000 foreign students each year. The cultural diversity represented by more than 190 nationalities makes Holland the perfect place for exchange of knowledge, ideas and cultures. Besides this cosmopolitan atmosphere, it is also very secure and was placed in the top 25 of safest countries in the world. With their very open and direct manner, the majority of Dutch people also speak English along with another foreign language, like German or French. Recently the Netherlands was even ranked number one on English proficiency out of 72 countries where English is spoken as a second language. So you do not have to learn Dutch in order to study here. As a foreign student you will notice how welcoming and tolerant the Dutch are, a mentality that has been engrained in the Dutch culture throughout its rich international history.

What also characterises this internationally oriented country is its strong and stable economy along with a highly innovative entrepreneurial climate. Holland is the fourth most competitive economy in the world and has a leading position in the export market despite its small size. So there is little doubt why economics is the most popular area of study for foreign students, with 26,936 students enrolled in 2016 alone. Being at the forefront of innovations in technology comes naturally to the Dutch. Around 16,600 foreign students came to Holland in 2016 to benefit from the Dutch innovative spirit and the highly specialised know-how in science and engineering.
Fields of study
HAN University of Applied Sciences offers just about every type of professional course in a wide range of fields: Education, Social Studies, Commerce, Communication, Business Administration, Law, Economics, Engineering, Built Environment, Applied Sciences, IT and Communication, Health, Nursing, and Sport and Exercise. Students can choose from a total of 63 Bachelors courses, numerous exchange courses and 19 Masters courses.

This brochure is dedicated to describing our five Bachelors and three Masters courses that are taught in English.

Education system
Known for its high quality education and research, along with its international study environments, the Netherlands has two main types of higher education institutions: research universities and universities of applied sciences. So what is the difference? Research universities focus solely on the independent practice of research-oriented work in an academic or professional setting. Universities of applied sciences offer their students professional courses in the areas of applied arts and sciences. Research is also carried out at universities of applied sciences, but it is always practice-based and aimed at renewing professional practice. It is also directly integrated into the study programmes.

Study environment
At HAN, we ensure that the study environment is perfectly suited to the personal and professional development of our students. Our classrooms therefore have a small scale set-up, with 20-30 students in a class, ensuring that each student receives plenty of personal attention. Moreover, the interactive and student-centred style adopted by our teaching staff gives students the needed guidance as well as the freedom to develop professionally. HAN also offers student coaching throughout all years of study to facilitate personal and professional development. The study coach is also the first point of contact for students who have questions about their study programme or personal matters.

HAN is proud to have a teaching staff with successful international careers, which offers students the best of both worlds when it comes to theory and practice. To stimulate development in practice, we offer work placements in the Netherlands and abroad, as well as practice-based assignments as part of our curriculum. This gives our students the opportunity to gain practical work experience in their chosen field. Experience that will strengthen their CV and help them get started or develop further in their chosen career.

Integration of theory and practice
At HAN University of Applied Sciences, the starting point of our education is the integration of theory and professional practice. We strive to let our students tackle concrete problems and opportunities facing the workplace today using the latest theoretical insights. Professional tasks therefore play a crucial role: students continually work on case studies taken from professional practice. During the work placement students are given the ultimate challenge of putting their theoretical knowledge into practice by solving real problems in real working environments. Problem solving is therefore a key focus in curriculum development at HAN.

Professionals from industry and the business world also contribute to curriculum development at HAN, ensuring that the courses are up to date and relevant. By tailoring the courses to industry requirements, students have a clear advantage in the career market. Applied research also plays an important role in the study programmes at HAN. Insights and research products developed within HAN’s six research centres flow back into the professional field and education. This means that students have access to the latest insights and can even get hands-on experience in cutting-edge research!
The Dutch education system

Most Masters degrees offered by research universities require completion of 60-90 credits. Those in engineering, mathematics, natural sciences, and agriculture require 120 credits, in pharmacy, dentistry, medicine and veterinary medicine, 180 credits.

Some research universities offer 2-year professional doctorate programmes in engineering (PDEng). Most Masters degrees offered by universities of applied sciences require between 60 and 120 credits. Programmes in architecture, urban planning and landscape architecture require 240 credits.

Research Universities

- Doctorate (PhD)
- Professional doctorate in engineering (PDEng)
- Medicine, veterinary med. pharmacy [180 credits]
- Dentistry [120 credits]
- MA/MSc [120 credits]
- MA/MSc [60 - 90 credits]

Universities of Applied Sciences

- Masters degree [120 credits]
- Masters degree [60 - 90 credits]

Higher Education

- BA/BSc [180 credits]
- BA/BSc [240 credits]
- B. Hons [180 credits]
- Associate degree [120 credits]

HAN University of Applied Sciences is partnered with over 280 institutions around the world. Where would you like to study during your semester abroad?
If English is not your native language, HAN’s English Preparation Course will be an excellent asset when following an international Bachelors or Masters course at HAN University of Applied Sciences. This prep course helps you greatly improve your English and familiarises you with the Dutch culture and education system.

Many foreign students are interested in studying in the Netherlands. However, despite great motivation and determination, weak English language skills can make it difficult for non-native speakers to complete their studies and obtain a degree.

Attending the English Preparation Course before starting a Bachelors or Masters course at HAN greatly increases your chances of obtaining a degree in the Netherlands. The course prepares you for your 1st year by strengthening your English language skills and broadening your knowledge of Dutch culture. It also assists you in developing your study and interpersonal skills. This makes it easier for you to build relationships with fellow students, find your way around the university and get used to your new surroundings. The course focuses on all four language skills (reading, writing, speaking, listening), grammar, Dutch culture and study skills.

In addition to our regular programme, you can attend one extra week of IELTS training and an IELTS test at our own location at the end of the semester. This increases your chances of continuing with the Bachelors or Masters of your choice. You also receive individual coaching from one of our lecturers and you can get support from a senior student through the buddy system.

The prep course is offered each year in February and September for one semester. You need to have a secondary school certificate and an overall score of 5.5 on the IELTS with sub scores no lower than 5. To pass the course you need to gain a level comparable to B2 of the European Framework (IELTS 6 or higher).

For more information
www.han.nl/english/preparationcourse
International Bachelors degree

HAN University of Applied Sciences offers a wide range of courses at its campuses in Arnhem and Nijmegen. Its international Bachelors and Masters degree courses are organised from within various prominent schools and institutes, including Arnhem Business School and the Faculty of Engineering.

The Bachelors degree courses are 4-year, full-time, professionally-oriented courses where work placement is compulsory. The main component of the course is called the major. Next to the work placement and the major you will be free to broaden your interests and skills by also choosing a minor. In general, it takes 1 semester to finish a minor. The HAN Bachelors degree delivers its graduates excellent credentials and marketable skills upon entering the global career market.

Arnhem Business School

Arnhem Business School (ABS) is the internationally renowned business school within HAN University of Applied Sciences. It offers two English-taught Bachelors courses: Communication and International Business. ABS provides high-quality, challenging and engaging education that follows the latest trends in the business world. Student needs, the work field and society are at the core of the education provided at ABS. With a community of around 1,000 students from 60 different countries, ABS’s main objective is to build on the international business studies and future employment opportunities of its students. ABS has an excellent international positioning. This comes from our large staff of lecturers with an international, successful professional background and our strong relationships with many well-known foreign companies and institutes of higher education. ABS students and staff also benefit from the school’s collaboration with more than 100 partner universities all over the world.

Faculty of Engineering

HAN’s Faculty of Engineering offers three English-taught Bachelors courses: Automotive Engineering at HAN’s renowned Automotive Institute, Life Sciences at HAN’s Institute of Applied Sciences and Electrical and Electronic Engineering at HAN’s Engineering Institute.

With more than 70 years of experience, the Faculty of Engineering provides its students with excellent teaching staff and outstanding facilities, including modern laboratories and equipment. The practical aspects of the courses are reinforced through laboratory work as well as through research done in cooperation with international and multinational companies. These specialised courses have paved the way for students to reach the absolute top in innovation, such as Oxford, Harvard or the Dakar Rally. Studying at HAN in one of these fields is the pathway to a highly meaningful and lucrative career.
The profession in a nutshell
Automotive engineers are versatile professionals with specific engineering skills relevant to the automotive trade. They are involved in designing, testing, managing, producing and maintaining vehicles. Automotive engineers constantly make decisions based on the combination of technology, commerce and business considerations. This sets them apart from business professionals as well as from the mechanical engineer since they have a broad knowledge of the product (the vehicle) and are the linking pin between a wide range of disciplines.

Theory and practice
At HAN University of Applied Sciences, theory and practice are closely interlinked. During the Automotive Engineering course you are constantly challenged to put theory into practice. For instance, when considering practical questions like: What kind of engine would you use for a kart – electric, combustion or hybrid? Throughout the course you work in groups of 6-8 students on practical assignments and projects focused on future mobility concepts. One such project is the multidisciplinary HAN Formula Student Team, where you build a formula race car and use this to compete against teams from all over the world. The HAN Eco-marathon is another project where you work in a team of students. The goal here is to develop the most energy efficient vehicle possible.

Research
Specialised education and applied research have played a crucial role in the recent reorganisation of the Dutch automotive sector. HAN’s automotive institute has kept pace with these changes by integrating research into its education. Students, lecturers and researchers conduct applied research on topics such as smart mobility, electrification of the powertrain and advanced driver support. The results flow back into education and into the professional field. This way you will be at the forefront of developments in the automotive sector.

Lab facilities
HAN Automotive Institute has modern, well-equipped labs. Here you work on developing, testing and improving all kinds of vehicles. For example in the hydrogen lab, where you can test equipment that enables vehicles to run on hydrogen. Or you can use the research lab with its many test environments. Almost all of these are fitted with self-developed data acquisition equipment based on LabVIEW, a graphic programming language. As an Automotive Engineering student at HAN, you have the facilities you need to test and develop innovative mobility solutions of the future.

A solid foundation
The first two years of the course give you a solid foundation in all the disciplines within automotive engineering. This way you discover where your interests and talents lie, so you can make choices about specialising later on in the course. Besides automotive and technical subjects, you also learn the ins and outs of management, communication and energy conservation. These topics are always approached in the context of projects, so you can immediately apply your knowledge in practice.

Bachelor
Automotive Engineering

Do you have a passion for cars and technology? Do you love challenges? Want to be part of the transition to clean, efficient and intelligent vehicles? Automotive Engineering at HAN gives you all the ins and outs of the international automotive world as well as a solid footing in marketing, management and business economics. Your skills will be in high demand.

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<thead>
<tr>
<th>Location</th>
<th>Arnhem</th>
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<tr>
<td>Duration</td>
<td>4 years</td>
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<tr>
<td>Degree</td>
<td>Bachelor of Science</td>
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<tr>
<td>Course start</td>
<td>September</td>
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Location
Arnhem
Duration
4 years
Degree
Bachelor of Science
Course start
September
Graduation assignment
At the very end of your course, it’s time for your most challenging step so far: the graduation assignment. This is the final evaluation of all the knowledge and skills you have acquired. You need to demonstrate that you’ve gained the competencies required of an automotive engineer at an academic level. You independently complete an assignment and present your findings and solutions in a graduation report. You can do your assignment at an international automobile company of your choice, such as Volvo, DAF or Aston Martin.

Work placement
In your 3rd year you do a work placement at an internationally oriented company, preferably outside the Netherlands. This exposes you to new information and working practices in your field of study. Before you start, you are coached on all aspects of the work placement during a preparation programme. Of course you are free to choose your own work placement. You could go to one of our partners in the Netherlands, for example DAF or VDL. Or what about spreading your wings and going abroad, to a company like BMW or Delphi? At HAN we encourage you to choose the path that’s right for you.

Minor
The 4th and final year of your studies begins with a minor programme for one semester. This allows you to deepen or broaden your knowledge in a particular aspect of automotive engineering. If you prefer to stay in the Netherlands, you could follow one of the excellent minors offered by HAN Automotive Institute: Light Weight, Autotronics, Internal Combustion Engines or Intelligent Vehicles. Another option is to follow a minor at another university in the Netherlands or abroad, or follow a bridging programme to prepare you for a Masters course.

‘Since my childhood, automobiles have been my passion. Studying Automotive Engineering at HAN has proven to be just what I expected since my first visit to an Open Day. The lectures are well structured and allow for specialisations based on your interests. This is complemented by various projects that not only give us a chance to implement theoretical knowledge, but also provide an insight into teamwork and management.’

Rohan Patil – Indian student
Bachelor Automotive Engineering

International setting
The Automotive Engineering course has a strong international focus. It gives you the opportunity to study abroad during your minor or work in a company outside the Netherlands during your work placement or graduation assignment. Besides that, you also have the experience of a truly international classroom, with students from over 40 different countries. While working together on projects, you pick up on the different cultural habits and ideas of your classmates. This way you learn how to effectively work with people from different cultures and backgrounds. An essential skill for a successful career in the global automotive industry.

Career prospects
As an Automotive Engineer you can work for a wide range of businesses, institutes and agencies. You could be active in the research and development, manufacturing or sales of products associated with automobiles or transport. The course organises an annual career day, where over 40 companies are present to give information on work placements, graduation projects and jobs.

Our graduates get jobs as:
• Vehicle Development Engineer
• Engine Development Engineer
• Vehicle Test Engineer
• Engine Test Engineer

Masters?
If you enjoy studying and want to specialise even further, you can always continue with a Masters degree. There are numerous Masters programmes in the Netherlands and abroad that might be interesting once you’ve graduated. With a BSc in Automotive Engineering from HAN, it will be a smooth transition into one of these HAN Masters programmes:
• Master in Automotive Systems
• Master in Control Systems Engineering

A good match?
• Are you passionate about automotive engineering?
• Are you technically inclined?
• Are you interested in motor vehicles and mechanical engineering?
• Do you enjoy working with other people?
• Are you open to change?

Is your answer to most questions YES? Then this course would be a good match for you.

Study load per week
Contact hours: 20
Individual study hours: 20

Division theory, practice and study coaching
Theory: 45%
Practice: 45%
Study coaching: 10%

Graduation percentage
63% of students graduate within 5 years

Employability
96% of all graduates find a job within 12 months

Course overview

1st year
• Introduction to Automotive Engineering
• Mathematics
• Mechanics
• Vehicle Dynamics
• Engine Technology
• Electronic and Embedded Systems
• On-board Diagnosis
• Commerce and Marketing
• Communication Skills

2nd year
• Control Systems Engineering
• Electrical Systems
• Mechanics
• Dynamics
• Strength of Materials
• Production
• Marketing and Communication

3rd year
• Work Placement
• Specialisation

4th year
• Minor
• Graduation Assignment

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Theory: 45%
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Course overview

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2nd year
• Control Systems Engineering
• Electrical Systems
• Mechanics
• Dynamics
• Strength of Materials
• Production
• Marketing and Communication

3rd year
• Work Placement
• Specialisation

4th year
• Minor
• Graduation Assignment
Bachelor

Electrical and Electronic Engineering

Would you like to use science and technology to improve the world we live in? To be part of the transition to sustainable energy? To make machines and devices more user-friendly? By choosing Electrical and Electronic Engineering at HAN you can be part of these exciting changes.

The profession in a nutshell
The field of Electrical and Electronic Engineering has many practical applications, for example in healthcare, the automotive industry, sustainable energy and the processing industry. This course will give you all the necessary theory and skills to become an engineer. In this profession you often work in a team with other engineers and people from other disciplines. If you specialise in Embedded Systems (ES) you will design, build and test intelligent systems and smart devices. If your focus is on Industrial and Power Systems (IPS) you will design smart solutions in industrial automation.

Theory and practice
At HAN University of Applied Sciences theory and practice are inseparable. Right from the start of the Electrical and Electronic Engineering course you put theory into practice in loads of innovative projects. What’s more, you have the freedom to choose the projects you like. Because HAN works in close collaboration with the Dutch energy world, you get to work on real projects for real companies. Here are a few examples:

- Autonomous vehicle (1st semester)
- Wind-driven vehicle (2nd semester IPS)
- Healthcare appliances (2nd semester ES)
- Parallel robot design (3rd year IPS)
- IoT enabled fitness environment (3rd year ES)

Research
HAN’s Sustainable Electrical Energy Centre of Expertise (SEECE) is closely linked to the course. Through this research centre, HAN develops and shares knowledge about innovations in the field of electrical energy. Staff and students work together to conduct practice-based research on topics like solar power and wind energy, with and for professionals in the field.

Lab facilities
As a student of the Electrical and Electronic Engineering course, you have access to our state-of-the-art lab facilities. The course has its very own workshop, equipped with measuring tables and modern measuring instruments, including signal generators and oscilloscopes. Everyday project materials such as electronic components and development kits are directly available there. You can also use the specialised labs to work on projects involving electronics, electric drives, control systems engineering, embedded systems and Linux.

Location: Arnhem
Duration: 4 years
Degree: Bachelor of Science
Course start: September
‘I really like the study programme I chose. The course is really challenging which always gives motivation to learn more. My interest in technology has only grown even more ever since I joined this course. The most remarkable project I worked on so far was the ‘Robot Car’ project. During this project we worked with sensors and programmed them for smart functions like collision prevention. It was a really challenging and fun project.’

Shaheer Nawaz – British student

A solid foundation
Your 1st year will give you a solid foundation in all the current topics in the field of electrical and electronic engineering. By the end of the 1st semester, you’re ready to delve into your area of specialisation: Embedded Systems (ES) or Industrial and Power Systems (IPS). Right from the start you go hands-on, applying what you’ve learned during individual and group projects. This approach gives you invaluable practical skills: not just the technical skills that every engineer needs, but also social and communicative skills.

Work placement
An integral part of your 3rd year is a work placement at a research institute or company of your choice. The work placement aims to develop your professional knowledge and skills, and prepares you for the job market. Before embarking on this exciting challenge, you get a thorough preparation programme that tackles all the important aspects of the work placement. With the IPS specialisation, you might do your work placement at TenneT, one of Europe’s top five electricity transmission system operators. If you’re specialising in ES you could go to Prodrive, an electronic and mechatronic solutions firm.

Minor
In the 4th year you follow a minor, an elective semester aimed at broadening or deepening your interests and skills. If you like, you can stay close to home by choosing one of HAN’s excellent practice-based minors:
- Embedded Vision Design: developing embedded hardware/software solutions to extract data from camera images
- Out of Control: designing control systems for motion, transport and energy conversion
- Power Minor: designing an electrical system or installation (in collaboration with TenneT and two other universities)

Or are you keen to go further afield and experience yet another educational environment? Perhaps even another culture? At HAN we encourage you to find the path that’s right for you, so you’re free to do an exchange course at another university in the Netherlands or abroad.
Bachelor Electrical and Electronic Engineering

Course overview

1st year
- Electrical Engineering Fundamentals
  - Mathematics
  - Electrical Circuits
- Information Technology
  - C Programming
  - Logic Circuits
- Project
  - Workshops 8-bit Microcontrollers
  - Workshops Electronics
  - Professional Skills
- Specialisation: Embedded Systems (ES)
  - 32-bit Microcontrollers
  - C++ Programming
- Specialisation: Industrial and Power Systems (IPS)
  - Introduction to Electrical Machines

2nd year
- Control Systems
- Data Communication
- Electronics
- Specialisation: Embedded Systems (ES)
  - Operating Systems
  - Software Engineering with UML
  - Digital System Design
- Specialisation: Industrial and Power Systems (IPS)
  - Power Electronics
  - Electrical Machines
  - Distribution and Low Voltage Grid

3rd year
- Work Placement
- Digital Signal Processing
- Specialisation: Embedded Systems (ES)
  - Internet of Things
  - Databases
- Specialisation: Industrial and Power Systems (IPS)
  - Systems Modelling
  - Servo Control
  - Control Systems

4th year
- Minor
- Graduation Assignment

Graduation assignment

The second semester of the 4th year is when you take your final and most challenging step so far: the graduation assignment. During this individual assignment, you are guided by a company coach and a HAN lecturer to tackle a real issue for a company. Now you’re definitely on your way to becoming a skilled and independent engineer. You can do your assignment at an internationally renowned firm, like Océ, a printer firm (part of Canon), or Liander, the largest grid operator in the Netherlands. But you may also opt for an innovative small or medium-sized enterprise (SME) in the region.

International setting

During your studies you will be part of a truly international classroom with students from over 20 different countries. By studying in such a setting, you pick up on different cultural habits, customs and ideas. You learn to deal with these differences and gain cultural awareness. What’s more, you can broaden your international experience by doing your minor abroad. Whichever path you choose, this course will thoroughly prepare you for a career in an international setting.

Career prospects

As an electrical engineer, you can choose from any number of employers in both the commercial and public sector. You could work in industries such as product manufacturing, electro-technical companies, oil and gas processing, food processing or the energy sector.

Our graduates get jobs as:
- Embedded Software/Hardware Engineer
- Lead Engineer
- Advisor
- Team Leader
- Industrial Automation Engineer
- Power Engineer
Masters degree?
Would you like to continue your studies? With your BSc from HAN, it will be a smooth transition into HAN’s Masters in Control Systems Engineering. Or you could opt for another Masters programme in either Electrical Engineering or Embedded Systems in the Netherlands or abroad.

A good match?
- Are you interested in science and technology?
- Are you inquisitive?
- Do you like investigating how things work?
- Do you like working with other students?
- Do you have a good feel for trends in new technologies?
- Do you want to know exactly how to design things in a safe and sustainable way?

Is your answer to most questions YES? Then this course would be a good match for you.

Study load per week
Contact hours: 20
Study hours: 20

Division theory, practice and study coaching
Theory: 50%
Practice: 40%
Study coaching: 10%

Graduation percentage
61% of students graduate within 5 years

Employability
100% of all graduates find a job within 12 months

For more information www.han.nl/electricalengineering
# Bachelor Life Sciences

Would you like to use science to improve the world we live in? To come up with solutions for world food shortages? To work on cures for cancer? These and other important advances all start with research in the laboratory. By studying Life Sciences at HAN University of Applied Sciences, you’ll get a solid footing in this exciting field.

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<thead>
<tr>
<th>Location</th>
<th>Nijmegen</th>
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<tr>
<td>Duration</td>
<td>4 years</td>
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<tr>
<td>Degree</td>
<td>Bachelor of Science</td>
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<td>Course start</td>
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## The profession in a nutshell
Life Sciences gives you the skills and understanding to perform lab research in different scientific settings, including fundamental research and quality control. You can specialise in molecular plant biology, molecular pathogenesis, or biotechnology. Your practical experience combined with your scientific knowledge and skills make you a valuable asset to a wide range of employers.

## Theory and practice
Theory and practice are inseparable at HAN University of Applied Sciences. You get a solid theoretical foundation as your lecturers guide you through all the current research topics in life sciences. But at the same time, you dive straight into practice in the lab. In fact, half your time is spent doing practical work. This means working in groups of 4-6 students on projects that deal with real problems in the field of life sciences. And because HAN University of Applied Sciences collaborates with companies and research institutes in the Netherlands and abroad, you get to work on cutting-edge research projects. This gives you invaluable experience as well as problem-solving and communication skills that put you in high demand on the labour market.

## Research
At the HAN Biocentre, staff and students conduct practice-based research that finds answers to specific questions from the professional field. The centre focuses on biodiscovery, which involves the discovery, analysis, production and application of biomolecules such as proteins and metabolites. As a Life Sciences student you can also participate in various research projects at other universities and institutes. Some students have participated in research on melanomas at the Department of Pathology and Cancer Biology (Vanderbilt University Nashville). Others have contributed to research at the Biochemistry Department at the University of Oxford. This involves *C. elegans*, a nematode that enables the study of pathological conditions, such as tumour formation.

## Lab facilities
During your studies, you will have access to excellent lab facilities. All the basics as well as advanced apparatus can be found there. What’s more, specialised microbiological, plant and biochemical labs allow you to do research on DNA, RNA and protein. To make cells visible you can use light microscopy, fluorescent microscopy and electron microscopy. For molecular research on skin cancer, you have access to real-time PCR apparatus, a high performance plate reader and a flow cytometer. And to make biological products, you can use the fermentation lab, where bacteria, fungi and yeasts can be fermented under ideal conditions.
In the 3rd or 4th year of the course, you complete an elective semester in which you broaden or specialise your knowledge. HAN offers a number of excellent electives in the field of life sciences: Biorefinery, Molecular Plant Biology or Research. But you might prefer to spread your wings by studying at another university in the Netherlands or abroad. Perhaps you intend to continue your studies after your Bachelors degree. In that case a bridging ‘pre-master’ programme will be a great option. Either way, at HAN we encourage you to find the path that's right for you.

In your 4th year, you're ready to take your most challenging step so far: your graduation assignment. It gives you hands-on experience at designing and carrying out your very own research project at a company or research institute. This project focuses on a major issue in the field of life sciences. When it's finished, you give a professional presentation of the results. You can do your graduation assignment at a company, research institute or hospital in the Netherlands.

A solid foundation
In your 1st year, you get a solid foundation in the life sciences, learning all the basic theories and lab techniques. At the same time you go hands-on with group projects that help you learn to patiently deal with actual life sciences challenges like cancer research. Starting from the 2nd year, your lecturers challenge you to work more independently so you become experienced in setting up research, and analysing and interpreting research results. At the end of the 2nd year, you are ready to choose your specialisation: molecular plant biology, molecular pathogenesis or biotechnology.

Work placement
In your 3rd year, you do a work placement of one semester at a research institute, a teaching hospital or a company in the Netherlands or abroad. This will boost your professional knowledge and skills and prepare you for the international job market. You are free to choose your own work placement, giving you the opportunity to experience the particular field you’re interested in. Some students have done their work placement at Keygene N.V., an agricultural biotech company, while others have been to the University of Bonn in Germany. Before you begin, you follow a preparation programme that tackles all the important aspects of the work placement.

‘Life Sciences is a course where practical skills are essential. At HAN, there is a lot of attention for the practical side and the lectures complement what we practice in the laboratories. What I like is that we learn things that are actually applicable in our future jobs. Studying at HAN has brought me many things, not only improving my scientific skills but also improving my social and soft skills such as how to do a presentation.’

Aufa Kunti Riona Aryandhani – Indonesian student

Elective semester
In the 3rd or 4th year of the course, you complete an elective semester in which you broaden or specialise your knowledge. HAN offers a number of excellent electives in the field of life sciences: Biorefinery, Molecular Plant Biology or Research. But you might prefer to spread your wings by studying at another university in the Netherlands or abroad. Perhaps you intend to continue your studies after your Bachelors degree. In that case a bridging ‘pre-master’ programme will be a great option. Either way, at HAN we encourage you to find the path that's right for you.

Graduation assignment
In your 4th year, you’re ready to take your most challenging step so far: your graduation assignment. It gives you hands-on experience at designing and carrying out your very own research project at a company or research institute. This project focuses on a major issue in the field of life sciences. When it's finished, you give a professional presentation of the results. You can do your graduation assignment at a company, research institute or hospital in the Netherlands.
Bachelor Life Sciences

Netherlands or abroad. Students who went before you did their assignments at companies such as Merck/MSD and Synthon Biopharmaceuticals, or at research departments of universities such as Dundee University in Scotland or the University of Queensland in Australia.

International setting
The Life Sciences course has a strong international focus. It allows you to study abroad and to work at a company outside the Netherlands during your work placement or graduation assignment. Besides that, your classmates come from around 25 different countries, so you pick up on different cultural habits and ideas and learn to become culturally aware. You also become involved in international collaborations through a variety of research projects. All of this prepares you for a career in an international setting.

Career prospects
As a Life Sciences graduate, you can work in either the commercial or private sector. This could be at a research institute, a hospital, a health agency or a pharmaceutical company. The type of work includes researching diseases, designing new drugs or undertaking quality assurance.

Our graduates get jobs as:
- Research Assistant
- Researcher
- Junior Project Leader

Masters?
Would you like to continue your studies? With a BSc from HAN, you'll experience a smooth transition into the HAN Master in Molecular Life Sciences. Or you could opt for another Masters programme, for example Molecular Chemistry, in the Netherlands or abroad.

A good match?
- Are you interested in molecular biology and DNA?
- Are you good at chemistry and maths?
- Did you enjoy doing experiments in school?
- Do you like the idea of working in a lab?
- Are you hard working and accurate?

Is your answer to most questions YES? Then this course would be a good match for you.

Study load per week
Contact hours: 20
Individual study hours: 20

Division theory, practice and study coaching
Theory: 50%
Practice: 40%
Study coaching: 10%

Graduation percentage
57% of all students graduate within 5 years

Employability
97% of all graduates find a job within a year

Course overview

1st year
- Cell Biology
- Molecular Biology
- Biochemistry
- Microbiology
- Genetics
- Chemistry
- Laboratory Mathematics
- Error Analysis
- Bioinformatics
- Mathematics
- One-day mini work placement

2nd year
- Molecular and Biochemical Research
- Interaction between Human, Plant and Microorganisms

3rd year
- Biomedical Research
- Molecular Plant Biology
- Biotechnology
- Work Placement
- Elective (3rd or 4th year)

4th year
- Elective (3rd or 4th year)
- Graduation Assignment
Bachelor

Communication

Do you follow the latest trends in media and communication? Online and offline? Do you like change and are you always up for a challenge? Then you might have the makings of a future communication professional. And by studying at HAN University of Applied Sciences you’ll have a head start on the global career market.

The profession in a nutshell
Communication professionals are the voice of organisations. They interact with diverse audiences using different forms of verbal, visual and online media. Communication professionals not only have a deep understanding of an organisation’s culture, but also of its mission and goals. With this knowledge in mind, they foster and nourish relationships with:

• customers and clients – to sell their products or services (marketing communication)
• employees – to ensure everyone is on the same page (internal communication)
• partners, shareholders, regulators, government and the community – to foster cooperation and support (corporate communication)

Theory and practice
At HAN University of Applied Sciences, theory and practice go hand in hand. Our courses give a solid theoretical foundation, which you immediately put into practice. And because we work in close contact with the professional field, you get to solve real communication problems and work on real international cases. During the course, you embark on challenging group projects for external clients. These include making a digital magazine in your 2nd year and devising an integrated communication plan in your 4th year.

Research
Research is an essential part of working as a communication professional. For instance, you use research results to devise a strategic communication plan, supporting your advice with evidence. Throughout the course you build and refine your research skills. This means conducting research on target group behaviour, company image, internal communication, media analysis and online communication.

A solid foundation
In the 1st year you get an overview of the broad field of communication. You also study a foreign language: Dutch, French, German or Spanish. This language comes in handy later on when you do your work placement and study abroad. During the 2nd year you broaden and deepen your knowledge of the communication field with practical assignments, research and your chosen foreign language.

Study abroad for a semester
In the 3rd year you broaden your knowledge and international orientation by crossing borders, moving out of your comfort zone and studying at a foreign university for a semester. HAN has over 280 partner universities across the globe, many of which are ready to offer you any number of interesting and useful subjects in the field of communication. Ever dreamt of studying in Australia, Spain, the USA, the UK, China or Mexico?
International community
During your studies, you will be part of the Arnhem Business School community with students from around 60 different countries. While this international flavour is just what you’re looking for, it might feel a little daunting at first. That’s why we offer student-mentors to help you settle in. During your 1st semester, they help you make new friends, find your way around, plan your studies and deal with cultural differences. And when you graduate, you’ll stay part of this community through Arnhem Business School’s active alumni association. This way you can keep in touch and network with your old study mates. For more information, visit www.arnhembusinessschool.com

Work placement abroad
In your 3rd year you do a work placement at an internationally oriented company, usually outside the Netherlands. This is the time to apply what you’ve learned and gain new perspective in a real business setting. You put your foreign language skills to work and get hands on experience dealing with different cultures and habits. Our students typically do their work placements at internationally operating companies like Nissan, Shell, Bosch, Dior, Vodafone, ING, Mercedes Benz and Adidas.

Graduation assignment
In your 4th year you will be ready for your greatest professional challenge so far: your graduation assignment. Collaborating with an internationally oriented company, you work out a planned solution to a communication problem at strategic level. This could be a/an:
• Marketing communication plan
• Branding plan
• Public relations (PR) plan
• Internal communication plan
• Online plan

What’s more, you get to choose the organisation. Our students often do their graduation assignment for leading organisations like Dekra, Philips, KLM, Microsoft, Nike, Estee Lauder Benelux, Huawei, Nike and Philips.

‘As a Communication student, you get to solve organisational challenges and improve the communication practices within businesses. The course offers many practical, interdisciplinary projects, in which we can present our ideas and show creativity. What I like is that HAN understands the importance of organisational processes in modern business and takes an innovative approach in combining business understanding with intercultural skills.’

Nicole Prinzen – German student

Up for an extra challenge?
Are you keen to take your studies a step further and do you enjoy working in a team? The ABS Talent Event is an exciting opportunity in the 4th year to present your team’s business project to an international panel of lecturers and professors from our partner universities. It’s also an invaluable learning experience about how your ideas, solutions, business plans and opinions translate across different cultures.
Bachelor Communication

Career prospects
As a communication professional, you can work in middle and higher management positions in the broad field of international communication. You might work at an advertising agency, government institution, non-profit organisation, publishing house or PR agency.

Our graduates get jobs as:
- Corporate Communication Manager
- International Marketing Communication Manager
- Account Manager
- Public Relations Manager
- Spokesperson
- International Brand Manager
- Social Media Manager

Masters degree?
After graduating you can always continue your studies at any number of universities across the globe. For example, you could do a Masters degree in:
- International Communication
- Business Communication
- Communication Science

A good match?
- Do you have an eye for what’s happening in the world around you?
- Are you inquisitive?
- Are you interested in current affairs and trends?
- Are you interested in other people and in communicating with them?
- Do you enjoy convincing others of your ideas?

Is your answer to most of these questions YES? Then this course would be a good match for you.

Study load per week
Contact hours: 25
Study hours: 15

Division theory, practice and study coaching
Theory: 65%
Practice: 30%
Study coaching: 5%

Graduation percentage
67% of students graduate within 5 years

Employability
95% of all graduates find a job within 12 months

Course overview

1st year
- Building Brands
- The Digital Explorer
- Brain & Behaviour
- Corporate Behaviour
- The Content Creator
- Intercultural Awareness
- Creativity and Critical Thinking
- Business Communication
- Dutch/French/German/ Spanish

2nd year
- Project: Digital Magazine
- Branding and Concepting
- Design
- Research
- Strategic Analysis
- Internal Communication
- Public Relations and Corporate Communication
- Marketing Communication
- Advising and Presenting
- Integrated Communication Game
- Business Communication
- Dutch/French/German/ Spanish

3rd year
- Study Abroad
- Work Placement Abroad

4th year
- Project: Integrated Communication
- Converged Media Strategy
- Campaign Calculation and Planning
- Creative Execution: Editorial Design
- Public Relations
- Trends in Global Business
- Online Management
- Personal Leadership
- In-company Graduation Assignment
International Business

Would you like to work with people from all over the world? Do you always aim high? Are you business-minded and not afraid of taking initiative? Then International Business could be the perfect match for you!

The course in a nutshell
International Business (IB) is an innovative, flexible course that equips you for the real world of international business. You step right into this dynamic and fast-paced world, where no two days are the same. In the 1st year you receive a solid foundation in all the facets of international business. From the 2nd year you focus on one of four specialisations:
• Finance
• Management
• Marketing & Sales
• Supply Chain Management

Throughout the course, you work on group projects and gain valuable international experience during your work placement and study abroad. What’s more, you can choose for how long you want to go abroad: from 6 to 18 months. In the 4th year of your course, you work in a team of students on a project for a company. The final step is conducting research for an internationally oriented organisation: your graduation assignment.

Theory and practice
During the International Business course you not only learn theory, but also how to put it into practice. HAN’s courses are renowned for their seamless integration of theory and practice. This is because the institution works in close collaboration with the professional field. You get the opportunity to work on a number of team projects in groups of 4 to 6 students: real projects for real companies. So when you graduate, you’ll have the knowledge and skills that employers are looking for.

Research
As an international business professional, you need to validate the choices you make and the advice you give to companies. In other words, you need to do research. Research begins with making a sound judgement of the sources. During the course, you learn how to tell the difference between reliable and unreliable sources. You also gain other valuable research skills. These will be crucial when doing market research for a company that wants to expand into another country, for example. When you need to answer questions such as: Is there a feasible market in that country? Which target group should we focus on? Which resources should we use to get the best results? Questions you’ll be able to answer by putting your research skills to work.

A solid foundation
During the 1st year you get a solid foundation in all areas of international business. This gives you a good idea of where your talents and interests lie so you can make an informed choice about your specialisation. You also study a foreign language in your 1st year: Dutch, Spanish, French or German. During the 2nd year you focus in more depth on your chosen specialisation. A vital aspect of doing business in an international setting is being able to understand other cultures. So an essential part of this course is developing cultural awareness and building up a solid international network.
Work placement
The work placement in your 3rd year will be a great asset to both your studies and your CV. You get to experience business life first-hand. Not only do you learn about business practices in your field of specialisation, you also learn about your own performance in a professional situation. You further develop your communication skills and intercultural awareness, which will be vital if you are to succeed in an international environment. You can complete your work placement in the marketing, sales, finance or logistics departments of either commercial or public organisations. You might be sharing knowledge and soaking up experiences in the offices of Deloitte Consulting, KLM, BMW, or L’Oréal, to name but a few.

Study abroad
In the 3rd year, you broaden your knowledge and international orientation by studying at a foreign university for a semester. Get a taste of university life in another country and strengthen your foreign language skills at the same time! HAN University of Applied Sciences has over 280 partner universities across the globe. What about studying in Australia, Spain, the USA, the UK, New Zealand or Mexico? You can choose from numerous universities that have interesting courses in the field of International Business.

Graduation assignment
In your 4th year, you are ready for the final and most challenging step so far: your graduation assignment. You apply the knowledge, insight and skills you’ve gained during your studies to conducting research for an actual company. The aim is to develop a solution for a strategic business problem at that company. Depending on your specialisation, this could be:
- Strategic e-business plan (Marketing & Sales)
- Supplier lead time reduction plan (Supply Chain Management)
- Business performance measurements plan (Finance)
- Management innovation plan (Management)

This assignment is done individually and on a project basis for a company of your choice, such as Philips, Siemens, Tesla, Kraft Heinz or Heineken.

‘I do believe that in order to be successful in business, I need to develop a global mind-set. HAN really helps me to achieve this particular goal. During the course I have been provided with insights into the global economic and business climates. What I like the most is that I am part of a proactive multicultural environment. I am surrounded by so many different nationalities and this really helps me gain new perspectives.’

Andelija Milas – Romanian student
Bachelor
International Business

Specialisations

Finance
As a finance expert, you operate at the company’s financial heart. Every day you are challenged to solve the puzzle of linking money, information, products and services in the most profitable way. It’s your job to develop and control procedures and systems so that decision-making is based on objective analysis and quantifiable information. At the same time, you have to keep the entire organisation in mind and balance the interests of all stakeholders. This requires a deep understanding of the human, cultural and non-financial aspects of a decision or transaction. Themes covered in this specialisation are international and corporate finance, accounting, risk management, external reporting and taxes, business communication and performance management.

Management
Internationally operating companies have to continually adapt to keep up with the changes of today’s globalising world. They have to address the shift to E-business and the growing need for innovation and sustainability, for example. In the Management specialisation you learn how to support and advise businesses to tackle these changes. Themes covered are E-business, sustainability, change management, innovation, leadership, project management and new types of businesses. You also study either Dutch, German, French or Spanish and learn to communicate in this language for business purposes.

Marketing & Sales
The main themes covered in Marketing & Sales are entering new markets abroad, international account management, improving international sales, international marketing and E-commerce. In this specialisation you learn how a company can expand into the global marketplace by investigating crucial marketing and sales questions, such as: What do customers want? Which new markets are potentially interesting? What's more, you need to be able to speak and write in a foreign language apart from English. You can choose from German, French, Dutch or Spanish and you’ll learn how to use this language in a business environment.

Supply Chain Management
The supply chain covers the entire track: from raw materials, through production and distribution, into the hands of the customer, patient or client. As a supply chain manager, you’re constantly weighing three competing interests: the customer needs, the operational possibilities and the financial consequences. You know the possibilities and limitations of all three parameters, whether in-house or at your suppliers. Your job is to find a balance between these interests and devise the best possible solution to ensure products or services are at the right place at the right time. To do this, you have to understand customer service and marketing perspectives, as well as sourcing, production, distribution and finance.
**International setting**

Arnhem Business School is home to students from around 60 different countries. This mix of students will make your time studying here a truly international one. You’ll pick up valuable cultural lessons from your study mates, learn a foreign language, work on international projects and have multiple opportunities to go abroad. While this international flavour is the very thing you’re looking for, you might find it hard to adjust to your new environment at first. That’s why we offer student-mentors to help you settle in. During your first semester, they help you make new friends, find your way around, plan your studies and deal with cultural differences. Once you’re settled, you can enjoy being part of the lively Arnhem Business School community: an invaluable international network that will stimulate your creativity and entrepreneurial spirit. For more information, visit [www.arnhembusinessschool.com](http://www.arnhembusinessschool.com)

**Career prospects**

International Business prepares you for a global and dynamic career in the rapidly changing business environment. Attending meetings, writing reports, travelling, liaising with clients, analysing data, negotiating, networking: it’s all in a day’s work for IB graduates. Typically you can start in entry or middle-management positions in management, finance, supply chain management or marketing at international companies and innovative enterprises in all sectors. Later on you can progress to middle and senior management positions.

Our graduates get jobs as:

- Marketing Manager
- Business Consultant
- Financial Analyst
- Project Manager
- Supply Chain Manager
- Account Manager

For more information
www.han.nl/internationalbusiness
Bachelor
International Business

Masters degree?
After graduating you can always continue your studies at any number of universities across the globe.
For example, you could do a Masters degree in:
• International Business and Management
• Business Administration
• Financial Management
• Supply Chain Management

A good match?
• Are you commercially inclined?
• Are you open-minded towards people from other cultures?
• Can you deal well with change?
• Are you driven to be the best?
• Do you take the initiative?

Is your answer to most of these questions YES?
Then this course would be a good match for you.

Study load per week
Contact hours: 20
Study hours: 20

Division theory, practice and study coaching
Theory: 65%
Practice: 30%
Study coaching: 5%

Course overview

1st year
• Marketing & E-business
• Intercultural Awareness
• Dutch/Spanish/French/German
• Finance & Accounting
• Change Management
• Supply Chain Management & E-fulfilment
• Research & Critical Thinking

2nd year
• Specialised subjects in:
  Marketing & Sales, Management, Finance or Supply Chain Management

3rd year
• Study Abroad
• Work Placement

4th year
• Business Project
• Strategy
• In-company Graduation Assignment
HAN Masters Programmes

HAN offers three English-taught Masters courses:
- Automotive Systems
- Control Systems Engineering
- Molecular Life Sciences

Focus on implementation
These Masters courses have a strong practical focus. From the start, Masters students are sent into the field to solve complex problems or to implement innovations using their skills in critical thinking and academic research. This experience benefits both the students and their future employers.

Small scale, up to date, peer focused
The courses are set up on a small-scale basis. Highly qualified lecturers with years of professional experience closely monitor their students’ development using inspiring teaching methods. Course materials are linked to current events, real-world dilemmas and new academic findings from HAN research groups. Students learn, not just from lecturers but also from their peers. This contact with fellow students results in valuable learning networks.

International Masters title
Graduates of these Masters courses have thorough knowledge and skills in the area of their profession as well as an international orientation. This is developed through internationally oriented modules and teaching methods, an international student population and close contacts with globally operating businesses. Upon graduation, students receive a Masters title that is internationally recognised.

For more information
www.han.nl/masterscourses
The profession in a nutshell
As an automotive engineer you are involved in the design, development, production and evaluation of vehicle systems and components. With the further qualification of a Masters degree, you also possess valuable skills in applied research, communication and management. This enables you to lead projects, while balancing engineering, economical and commercial interests. Moreover, you have the technical expertise to evaluate and realise underlying control strategies and embedded electronic systems. The combination of these skills makes you highly employable in this industry.

Theory and practice
At HAN University of Applied Sciences, theory and practice are seamlessly integrated. During the Masters in Automotive Systems, you put theory into practice during the ‘minor projects’ and during applied research for your Masters thesis. Research is geared towards solving an actual issue from industry. So knowledge and techniques from fundamental research are applied in an industrial environment and implemented in automotive systems and vehicles.

This collaborative approach strengthens ties with industry and stimulates the exchange of knowledge. As a result, professional practice is constantly renewed and you benefit from a Masters degree that perfectly matches industry needs.

Research
Students and lecturers of the Master in Automotive Systems participate in applied research projects for HAN Automotive Research Group. These projects are motivated by developments in the automotive industry, such as electrification of the powertrain, a growing trend introduced with the Toyota Prius in 1997 and which has gained momentum and interest ever since. The research group has collaborated with various companies on research in this area, including the building and testing of prototype vehicles and test rigs. Another important development is smart mobility. Over 80% of all accidents are caused by human error. By making vehicles smarter, accidents can be avoided, for example through active control concepts and advanced driver support. As a Masters student you get to work on these kinds of innovative research projects in collaboration with companies like Ford Research and DAF Trucks.

Practice-based modules
In the 1st year of the Masters in Automotive Systems, you follow practice-based modules. First you delve into the theory of the relevant module and then put it into practice during the ‘minor projects’, in which you work in small groups of students.
In the 3rd semester you complete an in-company or on-campus project in the field of automotive systems. This project is motivated by a real-life problem, supplied by an automotive company. It requires an understanding and active analysis of distinctive disciplines, culminating in a solution presented in the Masters thesis and defended during a presentation before a project committee.

On-campus projects are carried out within the HAN Automotive Research Group, where students, professors and staff researchers carry out applied research with and for the professional field.

1st semester
In the Systems Modelling module you learn how to create a white box model of a real world process using the 4+1 step approach. In the Applied Control module you learn how to create analogue and digital feedback controllers using techniques as phase and gain margin as well as root locus. In addition, you follow courses that help you develop the skills you need to be able to work in a project team and to conduct research, such as communication skills and research skills.

2nd semester
In the 2nd semester you choose two of the modules listed below. Each module provides you with the necessary theoretical knowledge to complete the ‘minor projects’, where you work on a practical issue related to the topic.

- **Innovation in Powertrains**
  Analysis of innovative powertrains concerning emissions, performance, fuel consumption and other relevant aspects.

- **Intelligent Mobility**
  Tracking control and automated vehicle guidance.

- **Vehicle Dynamics & Control**
  Dynamics of tires, passenger cars, articulated vehicles, motorcycles, racing and driver-vehicle interaction. Includes advanced vehicle control modelling/simulation practice.

‘Graduates make the link between state-of-the-art technology and current practice. You have to look at what the customer wants and translate that into technology. Besides technological knowledge and skills, the programme also addresses personal development: when the students graduate they will be working in positions suited to someone with a Masters degree. We understand the organisational skills this requires and incorporate the development of those into the study programme.

**Kea Bouwman-Jansen** – Coordinator
Masters course in Automotive Systems

**Masters thesis**
In the 3rd semester you complete an in-company or on-campus project in the field of automotive systems. This project is motivated by a real-life problem, supplied by an automotive company. It requires an understanding and active analysis of distinctive disciplines, culminating in a solution presented in the Masters thesis and defended during a presentation before a project committee. On-campus projects are carried out within the HAN Automotive Research Group, where students, professors and staff researchers carry out applied research with and for the professional field.
Master Automotive Systems

The in-company project involves a research/development assignment that contributes to a specific component, module or vehicle process at an automotive supplier or Original Equipment Manufacturer (OEM), either within the Netherlands or abroad. Students have previously carried out their Masters theses at companies like DAF, Ford, Benteler and Apollo Vredestein.

International setting
The programme has a strong international focus and directly reflects major international trends in the field, giving you an edge in the international automotive business. Moreover, you are part of an international classroom, which gives you the opportunity to study and work together with students from all over the world. This allows you to learn and understand different cultures and opens up the possibilities of global relations for personal or career purposes.

Funded by Dutch government
The Dutch government recently granted funding for this programme on account of its uniqueness and high quality. As an EU/EEA student, you can therefore benefit from lower tuition fees.

Career prospects
As a graduate of the Masters in Automotive Systems you can apply for professional engineering positions at internationally operating automotive companies and suppliers. In the border region between the Netherlands and Germany, for example, there are excellent career opportunities for automotive engineers. Moreover, with a Masters degree you show you have the skills to manage projects and conduct applied research, skills that are in high demand in this industry.

Our graduates get jobs as:
• Vehicle Application Engineer
• Product Engineer
• Calibration Engineer
• Advanced Research Engineer
• System/CAE Engineer

A good match?
• Are you passionate about automotive engineering?
• Do you want to broaden your career opportunities?
• Would you like to be the linking pin between different disciplines and management?
• Do you want to develop your leadership qualities?
• Are you keen to further develop your skills in intercultural teamwork?
• Are you analytical and do you enjoy doing applied research?

Is your answer to most questions YES? Then this study programme would be a good match for you.

Study load per week
Contact hours: 16 - 20
Study hours: 25

Graduation percentage
80% of students graduate within 2 years

Employability
80% of all graduates find a job within 12 months

Course overview
1st semester
• Applied Physics
• Introduction to Modelling
• Practice Modelling and Simulation
• System Identification
• Minor Project: Modelling Systems
• Feedback Control
• Apply Controller Strategy
• Controller Implementation
• Optimal Control
• Minor Project: Applied Control

2nd semester
Choice of two of the following modules, which each includes a Minor Project:
• Innovation in Powertrains
• Intelligent Mobility
• Vehicle Dynamics & Control

3rd semester
• Masters Thesis
For more information
www.han.nl/mas
Master

Control Systems Engineering

A HAN Masters in Control Systems Engineering takes your engineering skills to the next level. It gives you a thorough understanding of the advanced regulating systems used in today’s industry as well as cutting-edge techniques that are directly applicable in an industrial environment. The practical approach of this course is underpinned by the solid expertise of teaching staff and researchers.

The profession in a nutshell
Control systems engineers are involved in all processes from research, design, development and production right through to evaluation of control systems. The additional qualification of a Masters degree in Control Systems Engineering at HAN enhances your professional skills so you can effectively manage projects, while balancing engineering, economic and commercial activities. Moreover, you have the technical knowledge to realise and evaluate all control strategies and embedded electronic systems.

Theory and practice
Theory and practice are seamlessly integrated in the programmes offered by HAN University of Applied Sciences. During the Masters in Control Systems Engineering, you put theory into practice during the ‘minor projects’ and during applied research for your Masters thesis. Research is geared towards solving an actual issue from industry. So knowledge and techniques from fundamental research are implemented in control systems and applied in an industrial environment. This collaborative approach strengthens ties with industry and stimulates the exchange of knowledge. As a result, professional practice is constantly renewed and you benefit from a Masters degree that perfectly matches industry needs.

Location  
Arnhem

Duration  
1.5 years (full-time)

Degree  
Master of Science

Course start  
September

Research
Students and staff of the Masters in Control Systems Engineering participate in research conducted by the HAN Control Systems Research Group. This research focuses on the interface between energy and mobility, thus contributing to two key priorities at HAN: sustainable development and automotive applications. In the area of sustainable development, the research group works in close cooperation with the Sustainable Electrical Energy Centre of Expertise (SEECE). SEECE contributes to high-quality energy education and translates knowledge into commercially viable products and services through applied research and collaboration with regional companies in the energy business. An interesting automotive application the research group is working on is self-driving (autonomous) cars. Students of both the HAN Masters courses in Automotive Systems and Control Systems Engineering can participate in the development of these smart vehicles.
Practice-based modules
In the first year of the Masters in Control Systems, you follow practice-based modules. First you delve into the theory of the relevant module and then put it into practice during the ‘minor projects’, in which you work in small groups of students. These include projects regarding big data analysis, application of model predictive control and optimisation studies.

1st semester
In the Systems Modelling module you learn how to create a white box model of a real world process using the 4+1 step approach. In the Applied Control module you learn how to create analogue and digital feedback controllers using techniques as phase and gain margin as well as root locus. In addition, you follow courses that help you develop the skills you need to be able to work in a project team and to conduct research, such as communication skills and research skills.

2nd semester
The key modules of the 2nd semester are Big Data & Small Data and Advanced Control. Here you learn how to analyse big and small data and to create a controller that can deal with varying conditions using robust design techniques. Apart from these modules, you also choose to specialise in either mechatronics, energy management or the process industry by working on ‘minor projects’ in small groups.

Masters thesis
After completing all the modules and minor projects, you are ready for the Masters thesis. Here you apply the principles of the course to a real-life industrial situation. In addition to using your technical aptitude, you prove your ability to manage a project and demonstrate your communication, reporting and presentation skills. The Masters thesis is completed in an industrial or research environment and takes 5-6 months. Students have previously carried out their in-company Masters thesis at companies like Tatasteel, HyET, Alliander, Marel Stork Poultry Processing. Of course, you are also free to do your graduation project at a company abroad.

‘HAN University of Applied Sciences has an excellent reputation in the field of control engineering. The Masters in Control Systems Engineering is intertwined with the industry and co-operates with relevant research groups of other universities in the Netherlands and abroad. This approach ensures that the students’ knowledge and skills are the ones we need in our rapidly changing business.’

Peter Vaessen – MEng Segment Leader Future Transmission Grids at DNV GL
Master Control Systems Engineering

International setting
The course has a strong international focus and directly reflects major international trends in the field, giving you an edge in the labour market. Moreover, you are part of an international classroom, which gives you the opportunity to study and work with students from all over the world. This enables you to learn and understand different cultures and opens up the possibilities of global relations for personal or career purposes.

Funded by Dutch government
The Dutch government recently granted funding for this programme on account of its uniqueness and high quality. As an EU/EEA student, you can therefore benefit from lower tuition fees.

Career prospects
With a Masters degree in Control Systems Engineering, you are qualified to work just about anywhere in the technical sector. Your expertise will be greatly valued in higher education, research institutes, universities or in R&D departments of companies and organisations across the globe. In fact, in the border region between the Netherlands and Germany, engineers with expertise in control systems are in high demand. Moreover, the additional qualification of a professional Masters degree shows you have the skills to manage projects and conduct applied research: a great advantage in this industry.

Our graduates get jobs as:
- Advanced Research Engineer
- Control Systems Engineer
- Product Engineer

A good match?
- Are you looking to take your engineering expertise to the next level?
- Are you interested in control systems and how to design and develop them?
- Do you want to broaden your career opportunities?
- Are you analytical and do you enjoy doing applied research?
- Do you want to develop your leadership qualities?

Is your answer to most questions YES? Then this study programme would be a good match for you.

Study load per week
Contact hours: 16 - 20
Study hours: 25

Graduation percentage
90% of students graduate within 2 years

Employability
90% of all graduates find a job within 12 months

Course overview

1st semester
Module: Systems Modelling
- Applied Physics
- Introduction to Modelling
- Practice Modelling and Simulation
- System Identification
- Minor Project: Modelling Systems

Module: Applied Control
- Feedback Control
- Apply Controller Strategy
- Controller Implementation
- Optimal Control
- Minor Project: Applied Control

2nd semester
Module: Big Data & Small Data
- Data Collection and Features
- Apply Supervised Machine Learning
- Apply System Identification
- Minor Project: Big Data & Small Data

Module: Advanced Control
- Apply Optimal Control
- Adaptive and Robust Control
- Apply Optimal Estimation
- Minor Project: Advanced Control

Specialise in an application area by choosing a minor project in:
- Mechatronics
- Energy Management
- Process Industry

3rd semester
- Masters Thesis
The profession in a nutshell
Biotechnology uses living systems and organisms to develop or make products for agriculture, medicine and industry. As an expert in this field you usually work in a lab setting in fundamental research and/or quality control. By raising your qualifications to a Masters level, you expand your job opportunities to include positions with higher-level responsibility. This means you have the skills to independently plan, organise and execute projects, devise experimental strategies and write scientific documents. Moreover, you are able to oversee the organisational and interpersonal aspects of your projects. These are valuable skills that employers look for.

Theory and practice
One of the hallmarks of education at HAN is the seamless integration of theory and practice. During this course theory and practice go hand in hand. Both in class and at your workplace, you continually work on projects that contribute to the actual development of bioscience products. For example, the discovery of new targets or drugs, the optimisation of protein production and purification, or the development and validation of diagnostic tests.

After studying the literature, you design strategies and experiments, write complete project proposals, analyse data, give scientific presentations and write project reports. To help you reflect on your development in these areas, you have your own personal coach, who also stays in close contact with you during your internship.

Research
The Masters in Molecular Life Sciences is connected to HAN BioCentre, where students and staff conduct multidisciplinary research on actual issues from the professional field of biodiscovery. One such issue is finding alternatives to animal testing. HAN BioCentre is collaborating with the University of Oxford and other Dutch universities on the C. elegans screening system. C. elegans, a nematode, is genetically similar to humans, which means it serves as an ideal model for processes occurring in humans. Smart screening applications using this organism are therefore being developed as a viable alternative to animal testing. Another promising area within the field of biodiscovery is the microbial production of oil as an alternative to petroleum. HAN BioCentre is researching the use of microorganisms such as yeasts as promising sources of oil.

Master
Molecular Life Sciences

Are you looking to broaden your career options in the field of bioscience? Would you like to gain professional experience while studying? Do you want a course that meets industry needs and has been rated ‘top programme’ for 5 years running? Then take your science career to the next level by studying Molecular Life Sciences at HAN University of Applied Sciences.

Location
Nijmegen

Duration
2 years

Degree
Master of Science

Course start
September
Practice-based modules
This professional Masters course is geared to the needs of companies and research organisations active in the Bioscience sector. It consists of seven modules in which you learn to plan and execute projects in various phases of applied research and product development. Modules 1-4 cover the range of contexts that are important in the different areas of applied research and product development in the Bioscience sector. Modules 5-7 are conducted as an internship. Because your lecturers are actively involved in professional practice, they are abreast of all the latest developments in the field. As a result, they can effectively support you throughout your studies, especially during your internship.

Internship
Modules 5-7 are conducted as an internship, where you develop your skills in research and project management at a company. You do this by creating professional research products, for example a scientific report or an experimental design. On the project management side, you write up a project proposal for the internship company and develop your personal effectiveness by analysing your network and learning about situational leadership, for example. Students have previously carried out their internships at companies like MSD and NTRC or at the HAN BioCentre.

Masters thesis
In the final module you demonstrate your knowledge and skills in the form of a Masters thesis. This involves carrying out a project in applied research or product development for your internship company. You begin by writing a product plan and ensure that it is executed. Next you report on the results and reflect on the project execution. Finally, you defend your thesis in front of a board of examiners. Examples of past projects include developing diagnostic or prognostic tests, drug research, developing laboratory kits and protein production.

International setting
The course has a strong international focus. Firstly, you study and work on projects with students from a range of different countries, allowing you to learn about intercultural teamwork. Secondly, you complete your internship at an internationally oriented company, giving you first-hand experience of working in an international setting. And finally, HAN collaborates with the University of Florida (UF), allowing you to complete parts of their online Masters course in Pharmaceutical Chemistry. This provides you with intercultural competencies that are in high demand in the industry.

‘This Masters course encourages students to think outside the box, to conceive wild ideas. Students are looking further, seeing more of the bigger picture. New knowledge keeps the whole organization fresh.’

Maarten Witvliet – Project leader, Biosciences Center Boxmeer, MSD Animal Health
Master Molecular Life Sciences

Career prospects
With this Masters degree you can work in different areas of the Bioscience sector, such as pharmaceuticals, personal health care, diagnostics and the food and feed industry. Our graduates also work in universities, hospitals and private research institutes. A professional Masters degree gives you the opportunity to apply for jobs with more responsibility and opens doors to new challenges.

Our graduates get jobs as:
• Project Leader
• Lab Manager
• Researcher

If this Masters course has motivated you to delve even deeper into applied research, you can always follow in the footsteps of many past graduates and further your career with a PhD.

A good match?
• Do you have a Bachelors degree in molecular life sciences, biotechnology or something similar?
• Are you looking for more knowledge, skills and responsibility?
• Are you interested in both the science and project management aspects of bioscience projects?
• Would you like to translate fundamental knowledge into practical applications, such as drugs or diagnostics?

Is your answer to most questions YES? Then this study programme would be a good match for you.

Study load per week
Contact hours: 8
Workplace learning: 24
Study hours: 8

Graduation percentage
90% of all students graduate within 2.5 years

Course overview

Module 1: Fundamentals
• Molecular Biology
• Cell Biology
• Biochemistry
• Gene Technology
• Statistics
• Using Databases
• Reading Scientific Articles

Module 2: Drug Development
• Molecular Aspects of Cancer Development
• Various Targets and Drugs
• Assay Development
• Pharmacology
• Toxicology
• Statistics
• Bio-informatics
• Drug Registration
• Structure Elucidation Analysis

Module 3: Production of Biomolecules
• Production Strains
• Fermentation Technology
• Downstream Processing (DSP)
• Bio-analysis Methods
• Metabolic Engineering
• Gene Annotation
• Good Manufacturing Practice (GMP)

Module 4: Vaccines and Diagnostics
• Immunology
• Infectious Diseases
• Vaccine Development
• Diagnostic Testing
• Validation
• Statistics

Module 5: Research and Product Development Skills
• Research Skills
• Scientific Writing and Presenting
• Experimental Design
• Quality Assurance and Control
• Business Development

Module 6: Project Management
• Professional Conduct
• Interpersonal Effectiveness
• Project Planning and Control
• Professional Identity

Module 7: Masters Thesis
For more information
www.han.nl/mmls
Admission and application

For both the Bachelors and Masters courses at HAN University of Applied Sciences, there are two main admission requirements: prior education and level of English fluency.

Prior education requirements: Bachelors

<table>
<thead>
<tr>
<th>Bachelor</th>
<th>Required secondary education subjects</th>
<th>Diploma of secondary education</th>
<th>Fluency in English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication International Business</td>
<td>Sufficient grade in: Mathematics</td>
<td>Examples of diplomas: • Havo/Vwo/MBO (level 4) • International Baccalaureate • Abitur or Fachhochschulreife • High school, A or B grades • Sekolah Menegah Atas (SMA) • GCSEs + A(S)-levels • Bang Tot Nghiep Pho Thong Trung Hoc</td>
<td>• An IELTS score of at least 6.0 or • A TOEFL score of at least 80 (Internet based) or • A Cambridge Certificate in Advanced English (CAE) or Proficiency of English (CPE)</td>
</tr>
<tr>
<td>Automotive Engineering</td>
<td>Sufficient grades in: Mathematics and Physics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>Sufficient grades in: Biology, Chemistry and Mathematics</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Prior education requirements: Masters

<table>
<thead>
<tr>
<th>Master</th>
<th>Required Bachelors degree</th>
<th>Additional requirements</th>
<th>Fluency in English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive Systems</td>
<td>Bachelors degree in: Mechanical Engineering, Automotive Engineering, Automotive Electronics or a comparable degree</td>
<td>Minimum GPA of 2.8 out of 4.0</td>
<td>• An IELTS score of at least 6.0 or • A TOEFL score of at least 80 (Internet based) or • A Cambridge Certificate in Advanced English (CAE) or Proficiency of English (CPE)</td>
</tr>
<tr>
<td>Control Systems Engineering</td>
<td>Bachelors degree in: Engineering or a related technical discipline</td>
<td>Laboratory research experience of at least 5 months</td>
<td>• An IELTS score of at least 6.5 or equivalent</td>
</tr>
<tr>
<td>Molecular Life Sciences</td>
<td>Bachelors degree in: Life Sciences, Biochemistry, Biotechnology or comparable disciplines</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Application procedure: Bachelors and Masters

Please note!
Due to the visa procedure, non-EU students should apply as soon as possible.

Step 1 – Enrol through Studielink
Start your enrolment by applying through Studielink, the central Dutch online application tool for higher education in the Netherlands. HAN University of Applied Sciences will automatically receive your application from Studielink.
For instructions on how to enrol, please go to www.han.nl/admission > Application.

Step 2 – Send required documents
Within a few days of receiving your application, the HAN Admissions Office will ask you to forward certain documents that are needed to process your application.

Step 3 – Acceptance to the course

Bachelors courses
The Board of Admissions will review your application and documents, based on the admission requirements of HAN University of Applied Sciences. If necessary, you will be contacted for additional information or for an interview. The Board of Admissions will let you know whether you have been accepted into the course of your choice.

Masters courses
The relevant course coordinator will review your application and documents, based on the admission requirements of HAN University of Applied Sciences. You might be contacted for additional information and an interview. Following this, you will be informed whether you have been accepted into the course of your choice.

Step 4 – Becoming a student
You are considered an official student of HAN University of Applied Sciences once you have received the acceptance letter and paid the tuition fees. Then, you will be ready to start! You can check your application status online by visiting www.han.nl/myapplication.
Financial information

Tuition fees
To check the tuition fees that apply to you, please visit our website: www.han.nl/tuitionfees

Immigration
Non-EU/EEA students need a residence permit to study in the Netherlands. Permits are arranged through the Dutch Immigration and Naturalisation service (IND). HAN University of Applied Sciences applies for the visa and residence permit on the behalf of the student. To start this procedure, HAN needs to receive the following from the non-EU/EEA student:

- payment of tuition fees for the 1st year of studies
- payment of administrative fees
- proof of sufficient financial means of at least €10,500

Detailed information about the immigration procedure, including deadlines for the immigration application and the exact amount for proof of sufficient financial means can be found at www.han.nl/visa.

The procedure above does not apply to EU/EEA students, as they do not need a residence permit to stay in the Netherlands during their studies.

Orientation year
The Dutch government wants to offer all Dutch higher education graduates the opportunity to search for a job in the Netherlands. Therefore, non-EU/EER graduates can apply for the ‘orientation year highly educated persons’ residence permit within 3 years of graduation. During this orientation year you are allowed to work in the Netherlands without restrictions. More information can be found on the website of the Dutch Immigration and Naturalisation service: www.ind.nl.

Average monthly costs
The average cost of living for a student in the Netherlands is between € 700 and € 1,100 a month. This amount is needed to cover daily expenses, to pay the rent and for tuition fees. Approximately one third goes toward housing. Food might cost you another third. Fortunately, hot meals are offered at reasonable prices at our campuses in Arnhem and Nijmegen. In the city centre there are also pubs and cafés where you can get a good meal at a reasonable price. However, the cheapest way to eat is to cook for yourself. The remaining third of your money goes toward books, travel and other expenses.

Student grant
If you are from an EU or EEA member state, you could be entitled to a student grant from the Dutch government. For detailed information, visit the website of DUO: www.duo.nl.

Scholarships
Personal scholarships can be obtained from various organisations in the Netherlands or in your home country. For an overview of the available scholarships to study in the Netherlands, you can explore Nuffic’s Grantfinder at www.grantfinder.nl.

HAN University of Applied Sciences offers the HAN Excellence Scholarship Programme in collaboration with the Dutch Ministry of Education and Science. This programme consists of the following scholarships:

- HAN Prestige Scholarship
- HAN Merit Scholarship
- Holland Scholarship
- Orange Tulip Scholarship

These scholarships are granted to international students enrolling for a full-time course at HAN University of Applied Sciences. For detailed information about the criteria visit www.han.nl/scholarships.
Housing and facilities

Student housing
The HAN Housing Office can help you with accommodation as a student at HAN. HAN Housing Office provides furnished rooms for international students of HAN University of Applied Sciences for a maximum of one academic year. We have over 300 rooms/apartments on offer at different locations in the city. The HAN Housing Office Facebook page gives you an impression of the different types of accommodation available. Please check our website for more information on rental prices and how to apply: www.han.nl/hanhousingoffice.

Study and leisure
HAN’s facilities provide you with a diverse study and leisure environment. Use your HANaccount to gain access to a number of IT facilities, including wireless internet throughout our campuses. If sports is your thing, check out the different student sports associations in Arnhem and Nijmegen. Hot meals, snacks and sweets as well as beverages to satisfy any taste can be bought in the cafeterias spread around our campuses.

Study centres
HAN’s study centres are facilities to be proud of. We offer five of these centres: two in Arnhem and three in Nijmegen. Each has work spaces with computers, quiet study spaces, group work areas and facilities for working with laptops. On our website you can even check the available seats per study centre, so that you can quickly find a spot to study. And by using HAN’s search engine HANQuest, you can easily search through library catalogues and databases to find the resources you need. In the study centres, you can research both paper and digital sources, work on an assignment or presentation in peace and quiet or edit movies using a virtual cutting machine.

The HAN study centres are more than just libraries with multimedia facilities. The aim of these centres is to provide access to high quality and professional information to students to facilitate their study activities. This is achieved in two ways: by creating a physical and virtual learning environment that enriches students’ learning environment, and by providing advice and training for students to help them become critical and skilful in finding relevant academic sources.

Take a tour of our campuses!
www.han.nl/english/virtualtour
IT
Part of your study will take place online. With your HANaccount you can log in to your mailbox and, using the HAN-Scholar virtual learning environment, you can exchange information, assignments and results with your fellow students and lecturers. You can access HAN-Scholar, HAN’s virtual learning environment (VLO), from home and on campus. Have discussions and chat with other students, hand in assignments and check your grades. Lecturers can post their announcements and new assignments here as well.

When you use HAN-Scholar, you are always directly connected to HAN. Of course, this does not mean you have to do everything online. You also have plenty of time during lectures and tutorials to discuss things with your lecturers and fellow students in person. It’s the best of both worlds!

HAN Insite: our Intranet
Using Insite, HAN’s intranet, you can stay up to date with the latest news about your course. You can place announcements and advertisements on the virtual bulletin board. Use Insite to find information on just about everything, from courses to timetables and more.

Study with disabilities
If you have a disability or are chronically ill, you might need additional facilities to support you in your studies. HAN offers several services to make sure your study environment fits your needs. If you are dyslexic, for example, you might get more time to complete your exams. Inform your study career coach about your situation so that the necessary support can be made available to you. This will ensure you make a good start.

Sports
If sports are important to you, you are in for a treat in Arnhem and Nijmegen. There are any number of possibilities for filling your free time with sports activities – and often at a reduced student rate. For instance, with a USG sports card you have access to all the sports associations at the University Sports Centre Gymnasion in Nijmegen. In both Arnhem and Nijmegen you will find numerous student sport associations. This will help you take your mind off studying for a bit, and you might make some new friends along the way!

HAN’s facilities provide you with a broad and generous study environment!
The international student body at HAN University of Applied Sciences forms a close-knit yet inclusive community. They make their presence known on campus with their energetic, fun and creative social events. Events that they organize throughout the academic year. Usually, not a week goes by without an organised student event – either on one of the campuses or in the cafés and cultural venues across Nijmegen and Arnhem.

**Student associations**
Bachelors students can join various associations such as the International Student Association (ISA) at Arnhem Business School or the Student Council. ISA organises ski trips, visits to European cities and various social events like the well-known Boat Gala at the end of each academic year. The Student Council holds regular meetings with the course coordinators to discuss the finer points about the education offered at HAN.

**Strong ties with alumni**
At HAN University of Applied Sciences we go to great lengths to maintain strong ties with our alumni. We are interested in their careers, as well as their thoughts and comments about the courses we offer. This kind of information is valuable to us. Why? We are constantly fine-tuning our courses to fit current professional practices. Next to that, it is our goal to enable contact between our alumni and our current student body, creating both an exchange of knowledge and opening up opportunities. HAN has its own alumni networks and LinkedIn groups where former students can register and connect with each other.

**Introduction for new students**
New Bachelors students are invited to participate in the introduction week or an introduction day. This is designed to help students adjust to their new surroundings. During the programme, students are given information about everything from university regulations to lecture timetables. They also get to meet some of their lecturers and get a crash-course in HAN student life.

www.hanintro.nl

New Masters students are given a warm welcome on their first day at HAN. They will meet their fellow students and receive practical information on topics like lecture timetables, textbooks and software. After this introduction, students are ready to embark on an enjoyable and successful academic career at HAN!

www.arnhembusinessschool.com
www.facebook.com/arnhembusinessschool
www.facebook.com/HANmasterscourses
www.youtube.com/HANUAS
www.youtube.com/arnhembusinessschool
www.instagram.com/arnhembusinessschool
Meet us

Your further education is an important step in your life. Although you can read up on everything there is to know about the courses in this brochure and on our website, you cannot feel the atmosphere of its buildings or meet potential new lecturers and fellow students.

Come and meet us at one of our organised HAN Open Days or at an Education Fair to discuss whether this is the right place for you to study. If that isn’t possible, perhaps we could arrange a Skype session. We could also set up a one on one informative meeting between you and one of our representatives or an alumnus if either is located near you. Please contact us to discuss the possibilities.

Open days and open evenings
If you live in or near the Netherlands, come and meet us at one of our Open Days or Open Evenings. You will get the chance to meet our lecturers and students, and get acquainted with our courses and facilities. Come to a HAN Open Day or Open Evening and take a look for yourself!

Education fairs
You can also meet HAN students, staff and alumni at various annual Education Fairs. Come by our exhibition stand and talk with our students. Our students and alumni are eager to share their first-hand experience about their studies at HAN – find out about study loads, student life and living in the Netherlands.

Open Days

Nijmegen
• Saturday, 11 November 2017
• Saturday, 13 January 2018
• Saturday, 10 March 2018

Arnhem
• Saturday, 18 November 2017
• Saturday, 20 January 2018
• Saturday, 17 March 2018

Information sessions
HAN organises information sessions all over the world. There may be a session in your country soon. Why not take that opportunity to come meet our staff and ask your questions? Our staff can answer your questions and give you useful tips and advice about your specific situation. Don’t miss your chance to come and meet us in your country!

Prospective students who wish to find out more about a course can request an informal meeting at any time. These can take place in person, but a Skype session, telephone meeting or video conference can also be arranged if necessary.

Student for a day
Do you want to know how it feels to study at HAN before making the final decision? Then why not be a student for a day and find out first-hand. This day is organised so you can sit in on regular classes, get a guided tour of the campus and talk to lecturers and students. Your parents and friends are also welcome, so why not bring them along too. That way you can discuss your experiences with them afterwards. What better way to find out whether HAN’s international courses match your ambitions than to be a HAN student for a day?

Newsletter
Want to stay up to date on what’s going on at HAN? Then subscribe to our newsletter.

For more information
www.han.nl/meetus
Dutch culture
If your child is considering going abroad for their studies, the first step is usually to determine which country is the best study destination for him or her. When thinking about the Netherlands, most people picture things like cheese, windmills and wooden shoes. Fortunately, there is more to the Dutch culture than this. The Netherlands is a non-hierarchical society where the general belief is that every person is equal. This is reflected, for instance, in how decisions are made within a group: everyone’s opinion is heard so that all agree on the outcome.

The country’s history of welcoming foreigners into the country has created a melting pot of different cultures. This results in an open-mindedness and tolerance towards foreigners as well as respect for an individual’s freedom to live life as he or she chooses. While this mindset leaves room for people to be themselves, it also requires a certain proactivity if you want to get to know the Dutch. And even though the Dutch are generally very social, they are usually not that spontaneous and often organise their social activities in advance. As a result, punctuality is highly valued in the Netherlands. With all this planning and structuring, it seems that little is left to the unexpected. However, the Dutch do have an adventurous mind and are daring in business, which requires flexibility.

Helping your child make the right choice
As a parent you play an important role in deciding which course is the best match for your son or daughter. You can guide them in the decision-making process by ensuring they make an informed decision. For example, help them gather information by reading brochures and visiting websites of the relevant courses. Talk with your child about which aspects of the course they like or dislike as this makes it easier for them to form an opinion.

Once you have narrowed it down to a few options, you might want to visit an open day at a university or attend one of the education fairs in your own country. Students, staff and alumni from HAN University of Applied Sciences go abroad on a regular basis to represent our university at these events. We can also schedule a meeting through Skype or telephone to provide you with more information, if you are not able to meet us in person. Visit our website to see when we are coming to an education fair in your country: www.han.nl/meetus.

Getting ready to apply
In the Netherlands we believe everybody has a right to education, which is why most institutions do not have extremely high admission requirements. This might make it seem easy to earn a degree in the Netherlands. However, once students are accepted into a course they have to prove themselves and make sure they show sufficient study progress. To see the detailed admission requirements per course, as well as application deadlines, visit www.han.nl/admission.

Bachelors at HAN
A Bachelors course at a Dutch university of applied sciences takes four years to complete. During the first year, known as the propaedeutic phase, your child will acquire basic skills and knowledge and discover his or her talents within the chosen field of study. In the second and third year students deepen their knowledge and work more independently. A work placement is often included in this part of the course as well, providing students with practical experience at a real company. In the fourth year, students conclude their course with a graduation assignment in which they demonstrate the knowledge and competences they have acquired during their years of study.

Credits and study load
At HAN University of Applied Sciences, students have to obtain a certain number of credits (ECTS) in order to proceed to their second year of study. To obtain credits, they need to pass their exams and group projects. One credit corresponds to a study load of 28 hours and students have to obtain 60 credits in one academic year. If students have not gained sufficient credits by the end of the first year, they receive binding negative study advice and have to quit the course.
**Grading system**
The Dutch grading system ranges from 1 (very poor) to 10 (outstanding). The grades 1-3 are hardly ever awarded and 9 and 10 are very rare. The table below explains the Dutch grading system and how grades are awarded at HAN University of Applied Sciences.

<table>
<thead>
<tr>
<th>Dutch grades</th>
<th>Letter grades</th>
<th>Definition</th>
<th>Successful students awarded this grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.0 – 10.0</td>
<td>A</td>
<td>Excellent</td>
<td>10%</td>
</tr>
<tr>
<td>7.0 – 7.9</td>
<td>B</td>
<td>Very good</td>
<td>25%</td>
</tr>
<tr>
<td>6.4 – 6.9</td>
<td>C</td>
<td>Good</td>
<td>30%</td>
</tr>
<tr>
<td>5.8 – 6.3</td>
<td>C</td>
<td>Satisfactory</td>
<td>25%</td>
</tr>
<tr>
<td>5.5 – 5.7</td>
<td>E</td>
<td>Pass</td>
<td>10%</td>
</tr>
</tbody>
</table>

**Study coaching and counselling**
To ensure our students achieve the best possible results, HAN offers study coaching throughout all years of study. This way, we take good care of both the academic development and the well-being of our students. Study coaching thus involves supporting students in finding effective ways to study, making choices regarding their future career and in their personal development.

At HAN all students are assigned a study and career coach, a lecturer who is the first point of contact for students when they have questions about their study programme or personal matters. Besides the study and career coach, we offer a counsellor for questions about financial matters or for help with complaint and appeal procedures. Students can also contact a confidential counsellor if they need to discuss more serious personal matters.
HAN on the map

HAN University of Applied Sciences is situated in the eastern part of the Netherlands. It’s just a few kilometres from the German border, but also within easy distance from Amsterdam, London, Paris, Brussels and Berlin. The Netherlands is truly at the heart of Europe! Although the country is small, flat and densely populated, it has a bustling economy and a relatively liberal standing. The east of the country offers a typical Dutch landscape with charming scenery like wide rivers, bridges, dikes and polders. The Netherlands is known for its cultural diversity and relaxed cosmopolitan lifestyle. You can easily observe this on a sunny day after your classes while enjoying a drink with friends at one of the many outdoor cafés.
Living in Arnhem
The city of Arnhem offers a variety of eye-catching attractions, from fashion to history, museums to pubs, and concert halls to nightclubs. As the capital city of the Gelderland province, Arnhem enjoys a rich and eventful history which can be found in a number of monumental buildings scattered throughout the city. Arnhem is located at the very centre of the province, sprouting up out of lovely green surroundings with the Veluwe national park on one side and the lush floodplain area on the other.

Living in Nijmegen
Nijmegen is the oldest town in the Netherlands and a beautiful, old university city. It is surrounded by woodlands, castles and polders. Just walk a few minutes in any direction and you can enjoy nature and history at its best. Nijmegen has just about everything a student could wish for: museums, theatres, lively cafes, excellent sports facilities and a trendy nightlife.