

FONTYS UNIVERSITY OF APPLIED SCIENCES



> FOR SOCIETY

CONTENT

> STUDYING AT FONTYS UNIVERSITY OF APPLIED SCIENCES IN THE NETHERLANDS	4
> ABOUT FONTYS	5
> DUTCH HIGHER EDUCATION SYSTEM	6
> WHY STUDY IN THE NETHERLANDS AT FONTYS?	8
> TYPICALLY DUTCH	9
> FACILITIES AT FONTYS	10
> STUDENT AMBASSADORS	10
> FONTYS CITIES	
> BRAINPORT EINDHOVEN	12
> VENLO	14
> TILBURG	15
> PRACTICAL INFORMATION	46

ENGINEERING

› Applied Mathematics (BSc)	18
› Automotive Engineering (BSc).....	19
› Electrical & Electronic Engineering (BSc)	20
› Industrial Design Engineering (BSc)	21
› Industrial Engineering & Management (MSc)	22
› Logistics Engineering (BSc)	22
› Mechanical Engineering (BSc)	24
› Mechatronics (BSc)	25
› Digital Technology Engineering (MSc)	26
› System Design (MSc)	27

ICT

Bachelors

› Information and Communication Technology (BSc)	29
--	----

Main Profiles

- ICT & Business	30
- ICT & Infrastructure	30
- ICT & Media Design	31
- ICT & Software Engineering	31
- ICT & Technology	32

Specialisations

- ICT & Artificial Intelligence	33
- ICT & Creative Technology	33
- ICT & Cyber Security	34
- ICT & Education	35
- ICT & Game Design and Technology	35
- ICT & Smart Industry	36
- ICT & Smart Mobile	37
- Open Learning Semester	37
- Academic preparation	38

› Information Technology (BSc)	39
- Software Engineering	40
- Business Informatics	40

Masters

› Applied IT (MSc)	41
--------------------------	----

ALLIED HEALTH PROFESSIONS

› Medical Imaging and Radiation Therapy (MIRT) (BSc).....	44
› Physiotherapy (BSc)	45



STUDYING AT FONTYS

UNIVERSITY OF APPLIED SCIENCES

IN THE NETHERLANDS



Fontys is one of the most forward-looking and largest Universities of Applied Sciences in the South of the Netherlands. We offer Bachelor, Master and Exchange programmes in a variety of fields, including ICT and engineering, business, arts, logistics, communication and health. Fontys is the place to be for anyone who is interested in technology, entrepreneurship and creativity. Students of more than a 100 different nationalities can be found studying at our campuses.

Together with and for the professional field, we provide high quality higher vocational education and carry out innovative practically oriented research. In this way, we contribute to the power to develop a vital, inclusive and sustainable society.

Our campuses are located in three cities. **Eindhoven**, capital of the 'Brainport' region, is recognised as Europe's leading region for innovation and top-flight technology; **Tilburg** is known as the home of creativity, arts and business; and **Venlo**, where business, logistics and technology come together.



**WE OFFER BACHELOR, MASTER
AND EXCHANGE PROGRAMMES
IN A VARIETY OF FIELDS,
INCLUDING ICT & ENGINEERING,
BUSINESS, ARTS, LOGISTICS,
COMMUNICATION AND HEALTH.**

At Fontys you are our focus from helping you to choose the right study programme, to supporting you when enrolling and finding your way around Fontys and the Netherlands.

We offer challenging, high-quality and well-organised education. Education at Fontys is based on the pillars of knowledge, skills, professional attitude and personal attention. Our aim is to prepare you for a professional career. We challenge and guide our students to discover and develop their talents.

Personal attention

The atmosphere in our classes is open and the relationships between students and teachers are informal. We encourage questions and discussions in class. Each student has a personal study coach throughout their course of studies, with whom they can discuss their study progress, concerns and career wishes.

Practice based

The programmes we offer are very diverse, representing a mix of theory, the application of knowledge, internships and graduation assignments. We also work in a hybrid learning environment in which companies and students work, learn and develop together.

Intercultural experience

As a student, you have a number of opportunities to broaden your intercultural horizon. You can participate in internationalisation at home, enjoy short-term international activities, or you can take the opportunity to specialise in the form of a minor programme, at Fontys or at one of the more than 100 partner universities all over the world.

DUTCH HIGHER EDUCATION SYSTEM

Universities of applied sciences, like Fontys, offer educational programmes in which students apply their acquired knowledge to create instant impact on society.

By comparison, research universities offer educational programmes based on fundamental research to generate new knowledge for the future. Both educational systems result in a bachelor's and/or a master's degree.

Following graduation at Bachelor level from Fontys, you have a free choice to move on to education at master level, either at Fontys, another university of applied sciences or at a research university.

All learning activities in a programme can take place online or on campus. Depending on the programme the best possible blend of online and on campus will be chosen to suit each programme.



**WE STRONGLY BELIEVE THAT OUR EDUCATION
AND RESEARCH MAKES A VALUABLE CONTRIBUTION
TO A VITAL, SUSTAINABLE AND HAPPY SOCIETY**



STUDENTS
OF MORE THAN
119 DIFFERENT
NATIONALITIES.



OUR COMMUNITY OF 43,998 STUDENTS
OF WHOM 5320 INTERNATIONAL.

#WEAREFONTYS



5,581 STAFF
MEMBERS OF WHOM
3,663 LECTURERS
AND EDUCATIONAL
COACHES.



OUR TEACHING
STYLE IS
INTERACTIVE
AND STUDENT-
CENTRED.



HIGH **PERSONAL**
ATTENTION AND
GUIDANCE
DURING YOUR
STUDY.



GREAT VARIETY
IN **BACHELOR**
AND **MASTER**
PROGRAMMES.



BASED IN
STUDENT CITIES
EINDHOVEN ,
TILBURG
AND **VENLO**.

WHY STUDY IN THE NETHERLANDS AT FONTYS?

There are plenty of good reasons!

1. Fontys offers a wide range of programmes taught in English.
2. 95% of the Dutch speak English, ensuring easy daily communication.
3. Our teaching style is interactive and student-centred.
4. The tuition fees and cost of living are considerably lower than in many English-speaking countries.
5. Dutch society is internationally oriented, diverse, inclusive and strongly connected to other cultures, the business community and the world.
6. The Dutch are open-minded and straightforward; leading to easy interaction and this encourages the exchange of ideas.
7. The Netherlands is a great place to live. According to the Global Peace Index, it is one of the safest countries in the world, and features in the top 10 happiest countries.
8. Easy access to the whole of Europe! Within just a few hours you can be in Paris, London or Berlin.
9. Fontys maintains close ties with business and industry, offering you excellent career opportunities.





TYPICALLY DUTCH

Studying in a foreign country is very exciting and can be the experience of a lifetime, but it will also expose you to cultural differences. It's a good idea to find out more about Dutch habits and customs in advance.

The Dutch are renowned for their open-mindedness and down-to-earth approach, but also for their 'gezelligheid'. A difficult word to translate – and pronounce – it is all about the pleasure of being together. Our students love to hang out and to work together, to party and to go to festivals.

At the same time, the Dutch are well known for their directness. We can be very outspoken and straightforward. These character traits are based on the belief that everybody has the right to express their own opinion. Open discussion and acceptance of other views and attitudes are the perfect ways to learn from one another, and to make life better. In the Netherlands, it is not considered rude to tell people how you feel about a particular issue. In other words, make sure you participate actively in the classroom and never be afraid to give and receive critical feedback.

Another typical Dutch characteristic is punctuality. When we make an appointment, we are open about the schedule, and being on time is very important to us.

FACILITIES AT FONTYS

Every Fontys campus is equipped with state-of-the-art learning facilities including group and individual workstations, excellent IT support, research laboratories, libraries and restaurants.

Student services

Our international student service will help you with your application procedures and getting settled, so you feel at home as soon as possible. Every international student is also linked to a student coach. They will help you with (study) questions and offer useful tips and advice, whenever necessary.

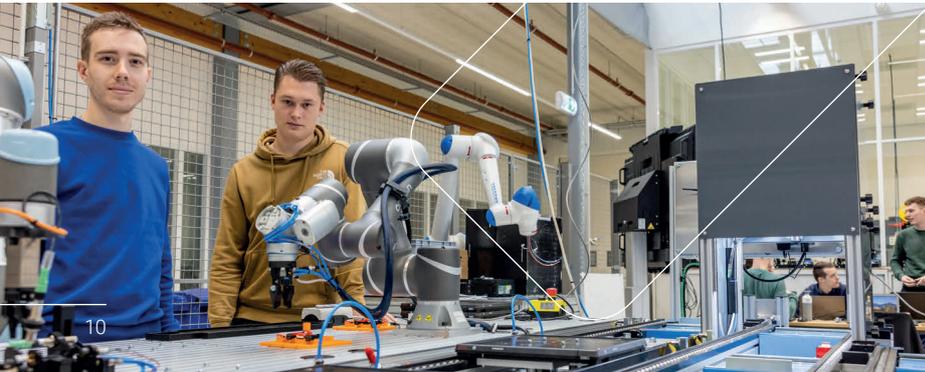
Fontys helps

You may sometimes need additional advice and assistance, over and above the guidance provided by your study programme. In such a situation, Fontys can offer all the extra help you need! For example, if you have questions about your personal circumstances, study delay or finances, our student counsellors, student psychologists or student career advisors can help you. For more information about our facilities, surf to: fontys.nl/en/helps.

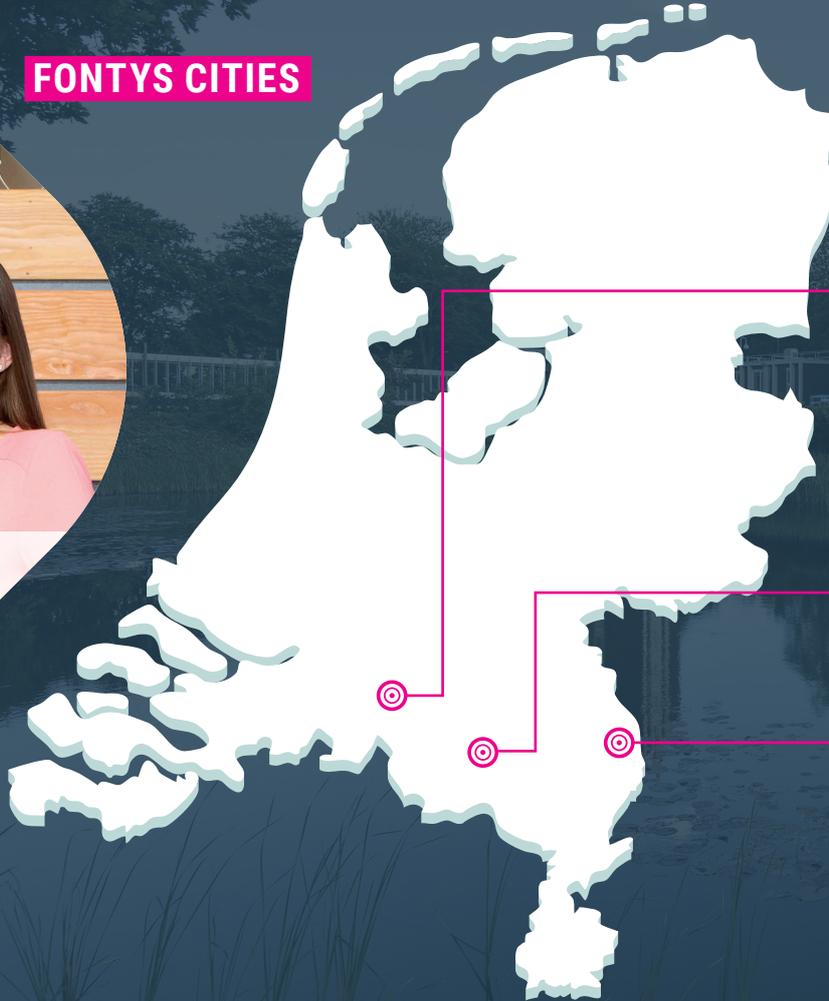


STUDENT AMBASSADORS

Fontys student ambassadors are international students who are happy to share with you their experiences of living in the Netherlands and studying at Fontys, and the Dutch way. They are also available to answer any questions you may have. Surf to fontys.nl/en/studentambassadors to find out more and get in touch with them.



FONTYS CITIES



TILBURG - The home of creativity, arts and business

Tilburg is a dynamic city that offers a raft of cultural events and is home to a progressive, creative community. With a population of just over 214,000, Tilburg is the sixth largest city in the Netherlands. Its down-to-earth local residents are well used to an influx of foreigners. Tilburg is currently experiencing explosive growth in numbers of international students and expats, all lured to the city by the many multinationals based there, including Coca Cola, Tesla, FUJIFILM, Sony, Ericsson and Schenker Logistics.

EINDHOVEN - Brainport - Europe's leading region for innovation and top-flight technology

Eindhoven is at the heart of the European centre of science and technology known as the Brainport region. Eindhoven is a genuine student city that offers a wide array of student facilities. It is the fifth largest city in the Netherlands and is hallmarked by industrial development, through its ties with Philips, ASML, DAF and numerous other high-tech companies that have long acted as a magnet for knowledge workers and students from abroad.

VENLO - Where Business, Logistics and Technology come together

The entrepreneurial spirit and engineering power of Venlo are widely recognised in the high tech, agro production, innovation, and retail sectors. The city, located close to the border with Germany, is renowned as a logistics hotspot. The presence of companies like Amway, Océ/Canon, Office Depot combined with world-leading local businesses such as Michael Kors, Herbalife, DHL and UPS.

**WE BELIEVE THAT STUDENTS OUTSMARTING
THEIR TEACHER IS A TEACHER'S
GREATEST COMPLIMENT.**
BRAINPORT EINDHOVEN



BRAINPORT EINDHOVEN

Europe's most innovative technology region

Brainport Eindhoven, situated in the south of the Netherlands, is the 'Home of Pioneers'. In Brainport Eindhoven, the smartest and most skilled minds collaborate on developing innovations that make our future better, safer, and cleaner. A region with an inventive spirit that values those who can get things done while others say it's impossible. Career growth, excellent quality of life, and a warm community are all here. The 'Home of Pioneers' is a place where opportunities are endless, and innovation and technology are top of mind!

The place to study for innovators

As a breeding ground of pioneers, education is a strong foundation for the Brainport Eindhoven region. With some of Europe's best universities and educational institutions, the region provides young innovative minds with the right tools to develop during their education journey. The region offers high-level education and many ways to develop

yourself in your journey of finding your dream career and life. Brainport Eindhoven has a unique profile and attracts those with an innovative mind and a set of skills ready to tackle problems that might seem impossible to others.

The perks of studying and living in the Brainport Eindhoven region for you

- Excellent high-quality education
- English-taught programmes
- Large number of English-speaking inhabitants

What makes us unique:

- Technological & innovative region
- Monthly +3000 tech & IT jobs
- Opportunities to work in key technologies
- Career development & professional growth
- A well-connected hub at your fingertips

brainporteindhoven.com/en



**YOU ARE ALWAYS STUDYING
IN A FAMILIAR, PERSONAL
AND INTERNATIONAL ENVIRONMENT.**

VENLO, WHERE BUSINESS, LOGISTICS
AND TECHNOLOGY COME TOGETHER.



**> 30,000 STUDENTS TRANSFORM
TILBURG INTO A HUB OF CREATIVITY
AND INNOVATION EVERY SINGLE DAY**



ENGINEERING

Bachelors

- › Applied Mathematics (BSc)
- › Automotive Engineering (BSc)
- › Electrical & Electronic Engineering (BSc)
- › Industrial Design Engineering (BSc)
- › Industrial Engineering & Management (BSc)
- › Logistics Engineering (BSc)
- › Mechanical Engineering (BSc)
- › Mechatronics (BSc)

Masters

- › Digital Technology Engineering (MSc)
- › System Design (MSc)







EINDHOVEN BACHELOR OF SCIENCE

fontys.nl/en/applied-mathematics

APPLIED MATHEMATICS (BSc)

WITH SPECIALISATION IN DATA SCIENCE

Organisations today have been collecting and using a huge amount of data to improve processes and products. These developments have created a considerable demand for experts in the data science domain with a solid background in applied mathematics. The range of applications for this expertise is enormous and can nowadays be found in practically any field. The applications and implementations of artificial intelligence, in particular, have led to significant innovations in many areas, including health, engineering, logistics, and sustainability.

This programme prepares you to become a data scientist with a solid mathematical background and focus on the fields of logistics and engineering. There will be a substantial emphasis on artificial intelligence throughout the programme. Our lecturers will equip you with a broad but solid mathematical basis in the first two years. During this phase, you will work on projects with your fellow students to gain your first practical knowledge of data science and mathematics. In the last two years, you will gain practical experience during internships and cooperative projects with students from other programmes. Furthermore, several in-depth courses will offer you state-of-the-art knowledge of data science.

AUTOMOTIVE ENGINEERING (BSc)

The vehicles of today are composed of intelligent systems connected to each other. There is a huge demand for lightweight vehicles that are able to communicate with their environment and this requires specialists who are willing to identify the limits in the field and push beyond them.

The Automotive Engineering programme will teach you how to design, create, and test these vehicles. As an automotive engineer, you will collaborate to the development of innovative electric vehicles and the communication and navigation systems that operate in tandem with the vehicle and its environment. You will also work on creating sustainable, solar energy applications for heavy-duty vehicles.

This 4-year English taught study programme focuses on a combination of theory, practice, and project work. The design of the programme is highly personalised, which enables you to get to know the team of lecturers very quickly and to feel comfortable almost immediately. At the beginning of your studies, you will be assigned a study supervisor, who will help to guide you throughout the programme.

EINDHOVEN BACHELOR OF SCIENCE

fontys.nl/en/automotive





ELECTRICAL & ELECTRONIC ENGINEERING (BSc)

Electronics are everywhere around us. Every device you have bought, you have chosen on its functionality, power consumption and ease-of-use. You only see its interface, while the electronics are hidden inside. Do you want to unravel their secrets and develop your own electronic prototypes? In that case the Electrical and Electronic Engineering bachelor is the education programme for you. With an interesting mix of theory and practice, we invite you to discover and master this field of engineering together with fellow students and enthusiastic teachers.

The education programme provides the basic knowledge and skills on all aspects of electronic systems you need to become a professional engineer, in particular in the field of electronic design and development. To place knowledge directly in context, we offer our curriculum within three themes: health, intelligent sound and vision systems and sustainability. For Fontys graduates, future career opportunities are excellent. Possibilities include a career in the (manufacturing) industry, and engineering positions in hospitals, the armed forces, lighting and audio companies, or even in the world of theatre. For excellent students, we offer special programmes where you can work at a company during your study or where you get prepared to start a master's programme directly after graduation.

EINDHOVEN BACHELOR OF SCIENCE

fontys.nl/en/eee

VENLO BACHELOR OF SCIENCE

fontys.nl/en/ide

INDUSTRIAL DESIGN ENGINEERING (BSc)

Industrial Design Engineering is a study programme that combines the beauty of design with the elegance of engineering and technology. The industrial design engineer is best described as the person responsible for joining the dots in the development of a new product or new system. In addition to their own competences, industrial design engineers understand the skills of fellow engineers and are capable of combining those skills in collaboration, to create intelligent solutions to design problems.

The industrial design engineer is involved in the entire process, from a new product idea right through its (mass) production. The products in question range from simple objects like a coffee mug or a toy through to the interior of an aircraft or a ground-breaking car design. Constantly taking account of the needs of the (future) user, although the engineer's work involves 'design and finesse', their products also function in the real world, and in most cases are intended for mass production. As an industrial design engineer, you will be able to work anywhere in the world, wherever new ideas are needed for the creation of innovative products. Equipped with both technical skills and design thinking capabilities, you are qualified to become an innovator at a major international company, a user interface designer for a start-up, or perhaps to start your own business, or anything in between. The opportunities are endless. No matter what career path you choose, you will employ a unique blend of art and science to achieve your goal, because that is in your DNA.





INDUSTRIAL ENGINEERING & MANAGEMENT (BSc)

Are you interested in becoming a manager of a technical company? Possibly at a company that develops and manufactures high-tech products or distributes these across the supply chain. The Bachelor of Industrial Engineering and Management (IE&M) in Eindhoven is your best preparation. Why? All aspects of managing a technical company are addressed. You will gain experience by working on challenging projects in real companies. After graduation, you will have great job opportunities in the respected and acknowledged Brainport Eindhoven region. Together with lecturers, fellow students and company managers, you discover what you need to know to develop a deep understanding of the people, organisation, technical know-how and economic impact.

In concrete, the programme focuses on manufacturing, logistics and purchasing challenges, such as lowering costs, improving quality, delivering products faster, and increasing reliability. A stimulating programme to help improve a company's performance by focusing on operational excellence.

Moreover, unlike many other industrial engineering programmes, we offer theoretical insights and practical skills to be successful. So, you will be ready to help and develop companies worldwide after four years!

EINDHOVEN BACHELOR OF SCIENCE

fontys.nl/en/iem

VENLO BACHELOR OF SCIENCE

fontys.nl/en/logistics-engineering

LOGISTICS ENGINEERING (BSc)

Buying an iPhone or car may sound simple, but all products are preceded by major logistical processes. Just think of the various components that have to be collected from all over the world. The production and delivery of goods must always be of good quality, and must take place at the right time, in the right quantity and at the right place. The study of logistics teaches students how to manage and improve the logistical flow of goods. This study field trains its graduates for related jobs in many different companies, from automotive and pharmaceutical through to wholesale and retail companies.

During the first 1.5 years you acquire solid knowledge in the fields of warehousing, production and distribution. Afterwards, you get future-proof and specialise in Logistics Engineering: companies are looking for talents being able to analyse data, deal with IT systems and most of all love crunching numbers. Logistics Engineering deals with operational management and the engineering aspects of logistics, for example, setting up new smart warehouse layouts, advising customers on the introduction of new IT systems for stock management or analysing and re-engineering the goods and information flow from supplier to customer. A graduate in Logistics Engineering, as the name suggests, is an engineer. Employment opportunities include positions as logistics consultant, distribution network designer or process manager at companies such as Amazon, Lufthansa or Samsung, all requiring a thorough understanding of the needs of people, processes and systems. Within 4 years of logistics studies you will have done 5 projects within companies, applying your knowledge and helping them to improve their logistics and supply chain performance.





MECHANICAL ENGINEERING (BSc)

Mechanical Engineering is all about machines and their mechanisms. It is the broadest branch of engineering, sometimes described as “The Mother of All Engineering”. Many other engineering studies find their origin in mechanical engineering. This means that your possibilities as a mechanical engineer are limitless. You might have a career designing and creating roller coasters for amusement parks, or be involved in the development of innovative, lifesaving techniques in the medical field. Or, as a process engineer, you could be optimising and creating durable and sustainable new processes for the industry. And how about being in the lead for the newest and most challenging high tech developments for chip manufacturing?

Are you interested in designing machines, products and processes? Do you enjoy creating new things? Or working on technical solutions? If you are passionate about technology, curious, resourceful and accurate, then mechanical engineering may be the right field for you. The course Mechanical Engineering at Fontys is aimed at building up solid theoretical knowledge and applying that in real situations. Our programme stands out for offering a lot of practical work and hands-on projects where you will work in teams on real and current issues. An internship and graduation project at a company in the Brainport region are guaranteed to boost your engineering skills and relevant experience to kick-start a successful career!

EINDHOVEN BACHELOR OF SCIENCE

fontys.nl/en/mechanical

EINDHOVEN & VENLO
BACHELOR OF SCIENCE
fontys.nl/en/mechatronics



MECHATRONICS (BSc)

This programme is a combination of electrical and electronic engineering, mechanical engineering, control systems and software design. You will be a designer and creator. With Mechatronics new systems are created which are more simple, reliable and economical. It is the key to automate more processes and make them more sustainable for a brighter future.

Mechatronic engineers design or select sensors and actuators, develop control algorithms and use or develop advanced functional materials for the design of mechanical systems.

Eindhoven

In Eindhoven the Mechatronics programme focuses on high-tech systems and robotics. The campus is equipped with labs in line with the latest developments. Its location in the no. 1 high-tech region Brainport offers opportunities to collaborate with interesting (international) companies.

Venlo

The Venlo Mechatronics programme is focussed on sustainability and energy transition. The strategically location in the Greenport region, adjacent to the international Ruhr area, provides students with access to the latest developments in green technologies and sustainable practices.





EINDHOVEN MASTER OF SCIENCE

fontys.nl/en/master-digital-technology-engineering

DIGITAL TECHNOLOGY ENGINEERING (MSc)

The Master of Science (MSc) in Digital Technology Engineering is a 2-year programme for ambitious students in Engineering, ICT, or Applied Sciences aspiring for a career in a broader role. In our challenge-based programme we educate self-directed professionals who can take a leading role in digital transformation. To fill in the needs of the rapidly changing working field, we prepare future engineers to go beyond the obvious while crossing disciplines like engineering, digital technology, business and design. As a result, all of our graduates can impact the whole process of product development, product integration, business development and organisational processes.

Present-day challenges such as climate change, infectious diseases, and the exponential growth of technology have no simple solutions. The rise of the smart society and digital transformation requires a different approach to digital technology, people, processes, and collaborations. Are you ready to take a leading role in this digital transformation? Are you willing to go beyond the obvious to solve complex and meaningful challenges in a cross-disciplinary approach? Do you want to build your network in the high-tech ecosystem of the Netherlands? Join our programme and learn how to do research on, develop and implement data-driven systems in real-life innovation projects while developing your soft professional skills.

SYSTEM DESIGN (MSc)

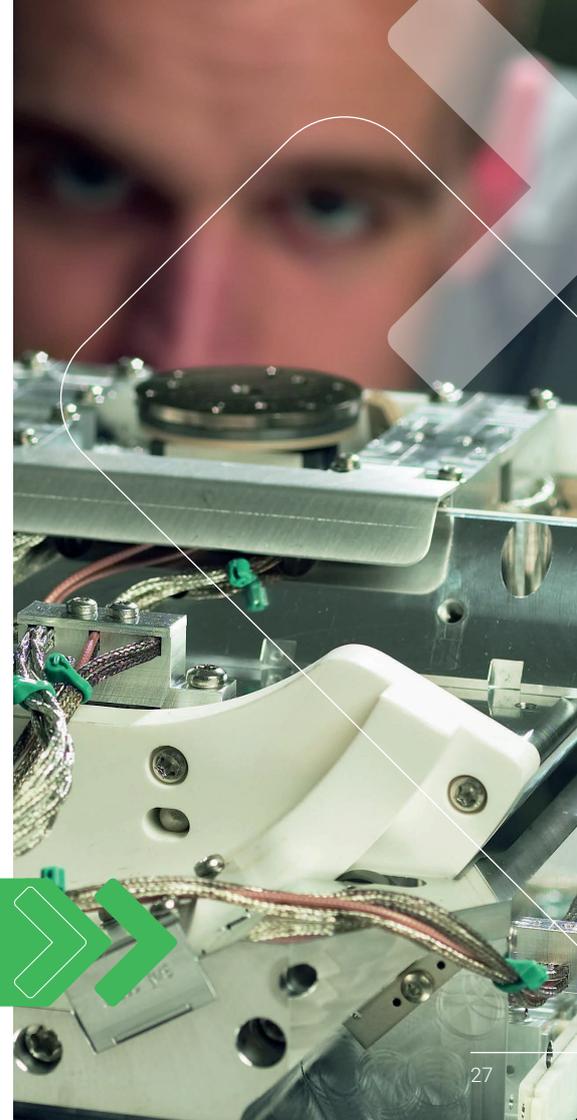
Are you interested in a leading role in high-tech system design? Do you want to learn more about high-tech system design and see all the technical interactions and interfaces in a system? Are you ambitious to develop systems that make the world a better place? Did you complete your bachelor's degree in engineering, and do you aspire a career in a broader role? Then, the Master System Design is the master for you!

System design engineers envision, configure and control the system engineering of high-tech systems such as processing machines, instruments and factory automation systems. Will you become the engineer, who crosses disciplines, who can think in conceptual and technical terms and who controls interfaces of the technical disciplines in system design to ensure working effectively and efficiently? Deepen your knowledge in architecture and engineering, mechanics and design principles, dynamics and thermal mechanics, new technologies, modelling & simulation, sensors technology and control engineering.

This master's programme offers a direct entry for students with an Engineering bachelor's degree (Mechanical Engineering or Mechatronics) who wish to complete their MSc degree in 2 years (pre-masters is not required) and accelerate their career.

EINDHOVEN MASTER OF SCIENCE

fontys.nl/en/systemdesign



ICT

Bachelors

> Information and Communication Technology (BSc)

Main profiles

- ICT & Business
- ICT & Infrastructure
- ICT & Media Design
- ICT & Software Engineering
- ICT & Technology

Specialisations

- ICT & Artificial Intelligence
- ICT & Creative Technology
- ICT & Cyber Security
- ICT & Education
- ICT & Game Design and Technology
- ICT & Smart Industry
- ICT & Smart Mobile
- Open learning semester
- Academic preparation

> Information Technology (BSc)

- Software Engineering
- Business Informatics

Masters

> Applied IT (MSc)



INFORMATION & COMMUNICATION

TECHNOLOGY (BSc)

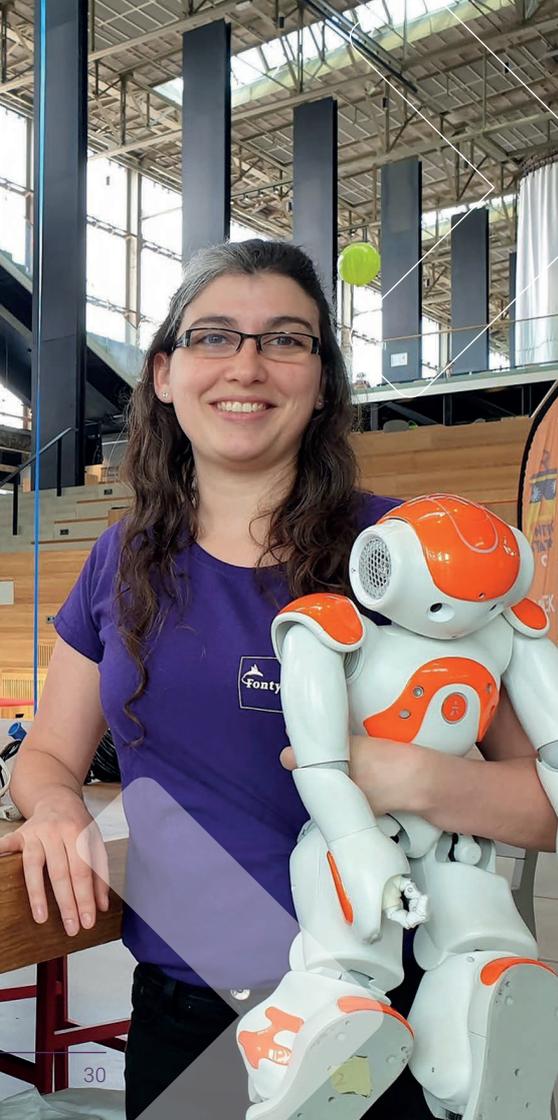
Developments in ICT happen at lightning speed. New products continue to be useful, but can also quickly become obsolete. This is why we offer you both solid basic knowledge and specialisation. You decide for yourself what you'd like to specialise in. Our teaching is as closely linked to practice as possible, which is why we have strong partnerships with over 120 renowned companies. After graduation, you'll have all the knowledge and skills you need to function well in any ICT profession.

We offer you a strong ICT study programme with various graduation tracks and ample choice to structure your personal learning route. You will be studying in English within an international environment at a university with collaboration with over 120 renowned companies in the Brainport region.

EINDHOVEN BACHELOR OF SCIENCE

fontys.nl/en/ict





MAIN PROFILES

ICT & Business

This profile teaches you to become a business informatics expert. In this role, you ensure that organisations function better by deploying smart ICT applications. You will build a bridge between management and users on the one hand, and technicians and administrators on the other. To do this, you must not only understand ICT - you should also know how to communicate, present, write, and report. Speaking and writing skills are therefore also discussed during the programme.

Companies like to hire people who can fulfil an all-round role like that. In addition, as a business informatician, you will help companies to make use of the ever-increasing availability of data about internal business processes, consumer behaviour and social media. Research and statistics are important within ICT & Business, as data specialists are in great demand. After the programme, you can work as a consultant, business analyst, or data specialist, or you can start your own business as an independent entrepreneur.

ICT & Infrastructure

Users and companies of today have high standards of information and communication systems – for example, in the field of reliability (i.e. availability, integrity and confidentiality) and guaranteeing the continuity of ICT systems.

The ICT & Infrastructure track trains you to become an infrastructure specialist. You will ensure that all information and communication systems used (continue to) function optimally on the infrastructure created. You will be able to offer, manage, monitor, and secure ICT resources. You will also be able to deal with rapidly changing technology (virtualisation – cloud) and increasingly complex IT landscapes. New management and monitoring tools and the increasing automation of management tasks also play a role in the daily practice of an infrastructure specialist. Besides managing existing ICT infrastructures, you can also advise on a new infrastructure based on set criteria and new technology, and design, test and realise it.

After the programme, you can work as a service manager, security officer, network specialist, cloud specialist, cloud architect, cloud engineer, or DevOps network engineer.

ICT & Media Design

At ICT & Media Design, you are constantly thinking up and creating valuable ICT-based applications for new media. You will learn to take a critical look at the role of media in society. Your role is to create ICT-based media concepts, with which you can convey stories to your target group. You learn to build useful applications and you are given room to experiment and develop your technical and artistic talents. In addition, you will learn to develop real software to bring your knowledge and ideas to life. You will work on interesting projects commissioned by clients from the field in groups, under guidance of a tutor.

After your studies, you will find yourself in a dynamic ICT work field. Here, you will find your niche as a creative front-end developer, interaction designer, creator of digital stories or, later in your career, as a trendsetting media and web strategist.

ICT & Software Engineering

Even the best computer is of little use without good software. A software engineer ensures that information is available to users and can be processed safely and efficiently. In the ICT & Software Engineering programme, you will learn how to analyse information. It teaches you how software can help to manage and process information. You will take into account who the users are and how they can best work with your software. Within this track, you decide whether you emphasise technical or non-technical software. Technical software is, for example, about controlling equipment. Examples of software for non-technical processes are the support of a web shop, a game, or a student administration.

After graduation, you can work as a programmer, system developer, information analyst, or software designer.





Accelerated programme

Fontys offers eligible international students a fast lane track of the bachelor ICT & Software Engineering (6 semesters = **3 years**). This accelerated programme will have an **academic approach** (including pre-master semester). This means that you can achieve your bachelor's and master's degree in 5 years.

Popular master tracks:

- Applied IT (Fontys) (zie pag. 41)
- Computer Science and Engineering (Technical University Eindhoven)
- Data Science and Entrepreneurship (JADS)

ICT & Technology

In this track, you will be working with software for technical systems that people do not readily recognise as computers. Think, for example, of software in an MRI scanner in a hospital, the engine management system in the new BMW, the automation of the production process of a beer brewery, your navigation system, or environmental monitoring systems for the World Wildlife Fund.

ICT & Technology has 2 focus areas:

- Creating software for embedded systems: the software is part of the product itself, for example when controlling a 3D printer.
- Industrial automation: for example, setting up a fully automatic assembly line, where robots turn individual components into a ready-made end product.

After this programme, you can work as a software engineer, technical designer, ICT architect or consultant in the embedded systems, technical information systems or industrial automation sector.

SPECIALISATIONS

ICT & Artificial Intelligence

Within the ICT & Artificial Intelligence specialisation, you learn how to build professional software solutions with intelligent behaviour in a methodical and structured way. Techniques such as machine learning and deep learning – such as algorithms that can learn rules from data – are central. The specialisation is design-oriented. In each semester, you go through the process of going from “business idea” to “AI product”. Data is essential here. In practice, this often involves large amounts of data, also in the form of images and texts. You learn to look critically at these kinds of data-driven solutions, and you will also learn about data ethics and legislation.

Once you have completed this specialisation, you can work for ICT companies as a machine learning engineer or an AI engineer. You can also join a data-science team within companies or government organisations, in which you will work on data-based innovations.

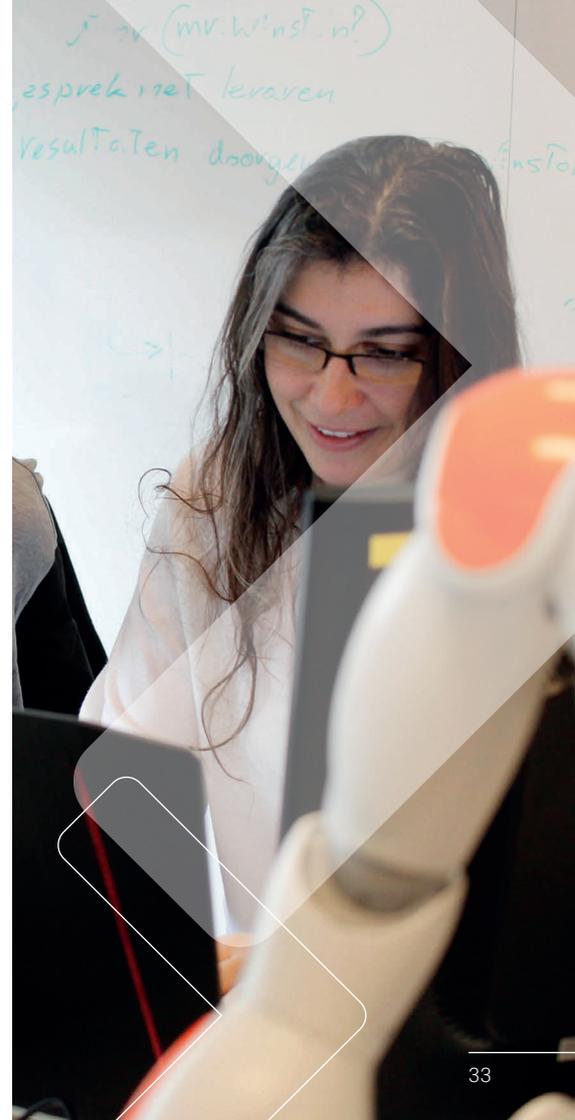
ICT & Creative Technology

With ICT & Creative Technology, you learn how to develop a personal perspective on technologies of the past, present and future. You get a deeper connection with creativity in general and your own creativity, always in the context of (emerging) technologies. You use a diversity of technologies to create an impact on society.

In the ICT & Creative Technology specialisation, you start from:

- either an impact you want to make and researching the potential of a technology to create it;
- or a technology of your choice and investigating how you can make an impact with it.

During the semester, you will explore your creative self, do lots of technology experiments, design interactive experiences, get inspired by regular field trips, discuss ethics, and eventually become an expert in creating innovative possibilities with technology.





ICT & Cyber Security

With all forms of cybercrime that exist today, more and more security professionals are needed to develop secure systems and to respond to threats timely and efficiently. Part of this is setting up security monitoring environments to detect security threats and track trends in malware and hacking attacks. Large companies also have specialist security response teams (CSIRT), which conduct security incident investigations such as security testing (pen testing), malware investigation, forensic investigation, or broader security incident investigation.

Within this specialisation, you will learn everything about security: the threats, their detection and analysis, and the possible solutions. A hacker's mindset is important here. As a security engineer, you learn to develop security functionality in a structured manner. You develop knowledge of network and server technology. You will learn how to set up security monitoring to make hacking attacks, malware infections or other abuses visible to companies. The course also teaches you to set up and perform security research such as pen testing, forensic investigation, or malware analysis. Technology is the main focus, but a security specialist also learns about causes and forms of cybercrime, people as a weak link in security, security-related legislation, and ethics.

You will be trained as an ICT security engineer and security specialist. After graduation, you can work as a security engineer, security incident response engineer, security researcher, security tester, network or system engineer, infrastructure consultant, or (Unix) server administrator.

ICT & Education

The use of ICT in education is constantly developing and changing the way people learn. That's why it's vital that the educational sector keeps up with this and responds to it. ICT professionals who can make the transition between ICT and learning are indispensable. In this specialisation, the focus is on learning to teach. You will learn how to clearly explain ICT applications to students, and you will learn how to translate a question from the field of education into usable ICT tools and concepts. The disciplines of ICT, education, and communication come together.

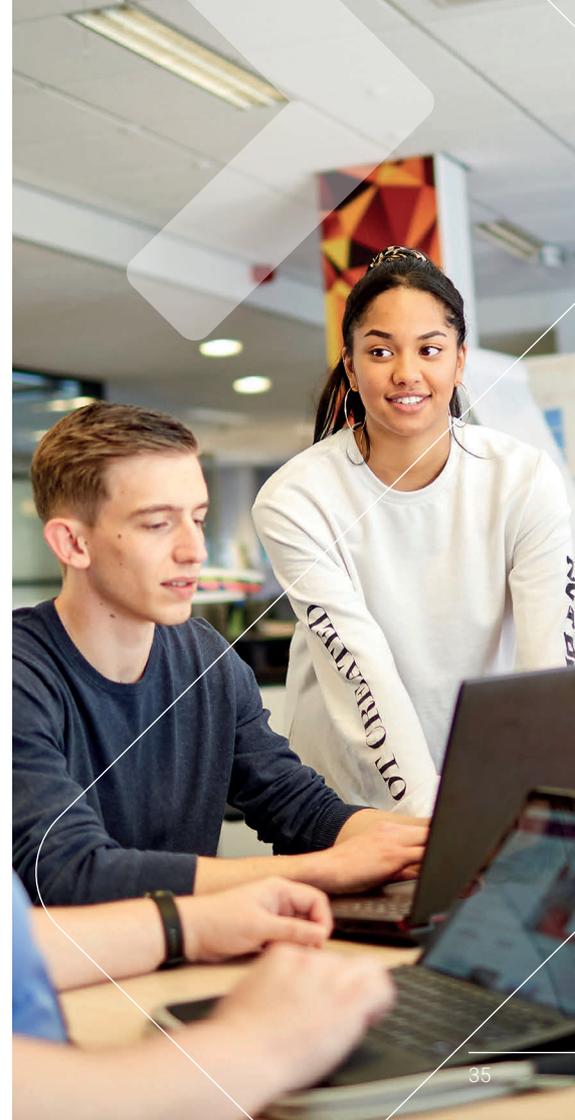
The course teaches you to anticipate the latest trends to bring about educational innovations. After the programme, you can work at educational institutions or at companies that develop educational ICT applications.

ICT & Game Design and Technology

The market for games as a form of entertainment is huge, and it's still growing. In addition, games are increasingly used in education, training or for product innovation. This is what we call "applied games".

Within this programme, you will learn how to apply your ICT knowledge to the creative development of games while working with the most up-to-date game development tools. The games you develop are a mix of entertainment and applied games, in which you work for real clients. We challenge you to be inquisitive and innovative by making use of new technologies such as Augmented Reality and Virtual Reality. We also challenge you to create games in new environments, such as the swimming pool or the woods.

After this course, you can work as a game designer or game developer who knows how to link technology with creativity and innovation.





ICT & Smart Industry

Social media has become an integral part of daily life for almost everyone. People share their activities in all sorts of ways, which can be fun or amusing, but also useful if you need support with such an activity, for example.

In recent years, more and more industrial machines have been connected to the Internet to share data on devices, production, services, and logistics. This data is shared with people, but it's also shared between machines. This data can be used to make today's industries smarter, more efficient, and more sustainable. Today, we can say without a doubt that Industry 4.0 has arrived.

The new field of Smart Industry raises a whole series of new questions that need to be answered. How can machines exchange data in a secure, robust way? How can this data be used for optimisation (such as machine learning)? How can we communicate with machines in an intuitive and safe way? How can machines interact effectively?

The new Smart Industry specialisation provides answers to these questions in multidisciplinary projects.

EINDHOVEN BACHELOR OF SCIENCE

fontys.nl/en/ict

ICT & Smart Mobile

Since the development of the smartphone, mobile IT and media have been a big part of our daily lives. Meanwhile, personal wearable IT is also making strides. The arrival of optical wearables and biometric sensors is already considered quite normal. And in that area too, we are only at the beginning of a booming industry.

In this specialisation, you learn about the operation and possibilities of mobile devices. These range from smartphones or tablets to interactive watches, biometric wearables, or optical wearables, such as Google Glass. The focus is on what is happening within the device, also in terms of interaction, but also on what needs to be regulated in the background.

After graduation you will be able to find a job as a smart mobile consultant, mobile solution specialist or developer of mobile appliances.

Open Learning Semester

This is a specialisation in which you will have a lot of freedom and flexibility to determine your personal focus and structure. This gives great opportunities for starting multi-disciplinary projects. Projects should be IT-related, based on relevant questions and developments from the professional field and possibly externally validated. You can create your own challenge and pitch it to the population. Of course, this challenge has to be approved and an external stakeholder has to be found. It is possible to work on more challenges at one time. Work is mainly done in groups supervised by personal coaches. This large degree of freedom does not mean that there are no obligations. A large amount of autonomy and entrepreneurial behaviour is expected. Lots of freedom, but remember: "Freedom comes with responsibility"





Academic preparation

This specialisation is dedicated for students who are interested in a Master at the Eindhoven University of Technology (TU/e) or at the Jheronimus Academy of Data Science (JADS). The main benefit for you is that you can immediately start your Master programme at the Tue or JADS after your Bachelor graduation at Fontys. The student should realise that this specialisation (and accompanying minors) has a higher study load and abstraction level than the regular specialisations.

If you are interested in a JADS master:

- This specialisation develops your academic skills as a preparation of the JADS minor
- note: instead of this specialisation, you could also select the Artificial Intelligence as a preparation of your JADS minor

If you are interested in a TU/e master:

This specialisation offers Part I of the pre-master for the following master-programmes at the TU/e:

- Computer Science and Engineering
- Data Science in Engineering
- Embedded Systems
- Information Security Technology
- Part II is covered in the TU/e minor.

EINDHOVEN BACHELOR OF SCIENCE

fontys.nl/en/ict

INFORMATION TECHNOLOGY (BSc)

Information Technology (IT) in Venlo focusses on the two disciplines “Software Engineering” and “Business Informatics”. It’s an integrated study programme in which all aspects of software development for modern devices are covered, paying attention to Data Science and the Internet Of Things specifically.

The first 3 semesters of the study programmes are identical for both Software Engineering and Business Informatics, and deal with such subjects as computer basics and security, databases, programming concepts and app development. From semester 4 onwards, students specialise in Software Engineering or Business Informatics and may choose from a variety of subjects including machine learning / AI, cyber security and enterprise software development.

There is a close cooperation with the study programmes Logistics Engineering, Mechanical Engineering and Industrial Design Engineering, enabling multi-disciplinary projects. Dutch, German and international students study together in one programme guaranteeing a rich cultural exchange environment. Next to the two internships, the so-called “Software Factory” is one of the highlights at IT in Venlo providing you with additional work experience. Within this project you develop customised software solutions which are ready to market in cooperation with one of our partner companies.

VENLO BACHELOR OF SCIENCE

fontys.nl/en/se-and-bi





Software Engineering

Software Engineering relates to the complete process surrounding the development and improvement of computer applications; from initial idea, via implementation through to going live, and maintenance. Both from a technical perspective and from a user perspective, these are challenging processes. To be usable and acceptable, applications must fit the needs of the user. As a software engineer, you will learn to develop and implement state-of-the-art computer applications that are truly usable in practice.

Business Informatics

Business Informatics professionals bridge the gap between users and developers of computer systems. They are the 'missing link' between business and IT. First and foremost this requires extensive basic technical knowledge, but that also calls for an understanding of key business processes, and how they can be supported by information technology. Students acquire an analytical work approach that will enable them to embed IT in a whole range of different environments.

VENLO BACHELOR OF SCIENCE

fontys.nl/en/se-and-bi

APPLIED IT (MSc)

Are you an independent and confident ICT professional who wants to learn to deduce insights from challenges that lead to general, innovative solutions? In short, are you someone who wants to create solutions that impact society? Then the Fontys Master of Applied IT is for you.

Fontys ICT offers motivated students the opportunity to enrol in the Master of Applied IT. This programme is connected to the Fontys ICT bachelor's programme (BSc) and offers you the opportunity to further professionalise with a broader and deeper knowledge of your field.

At Fontys ICT, we strive for a close connection and cooperation with the professional field in our education. Therefore, you can expect that in our Master of Applied IT, too.

With this master, you get:

- A Master's degree (MSc) at level 7 of 60 EC, after a duration of 1 year (full-time) or 1.5 years (part-time).
- A development of a deeper and broader set of IT skills.
- A programme where you learn through interdisciplinary collaborations between education, research, and practice.
- The skills and insights to abstract issues into generalisable solutions.
- The opportunity to work with reputable (partner) organisations.



ALLIED HEALTH PROFESSIONS

Bachelors

- › Medical Imaging and Radiation Therapy (BSc)
- › Physiotherapy (BSc)







EINDHOVEN BACHELOR OF SCIENCE

fontys.nl/en/mirt

MEDICAL IMAGING AND RADIATION THERAPY (MIRT) (BSc)

This English-taught programme qualifies you to become a professional in medical imaging and radiotherapy. You will learn everything about imaging in radio-diagnostics, ultrasound, nuclear medicine and radiotherapy treatment. You will also learn how to take care of the patient before, during and after the examination or treatment. Saving, (post-) processing and analysing the examination images will also be a part of your education. How to create a radiation treatment plan for a cancer patient and perform treatment, is an example of a part of a programme.

Are you interested in innovative technological developments, and do you like the challenge of applying them, then this programme might be interesting for you. Due to the technical nature of this programme, like radiation physics, it is important that you are sufficiently proficient in mathematics and physics. Your study career counsellors will supervise you during this journey and, eventually coach you in your personal development to become a healthcare professional. We will teach you how to use the equipment, communicate professionally, interpret medical/technical results and eventually working up to make a treatment plan. After graduating, you can choose to work in Radiology, Ultrasound, Nuclear Medicine and Radiotherapy departments of hospitals or work in business or commerce.

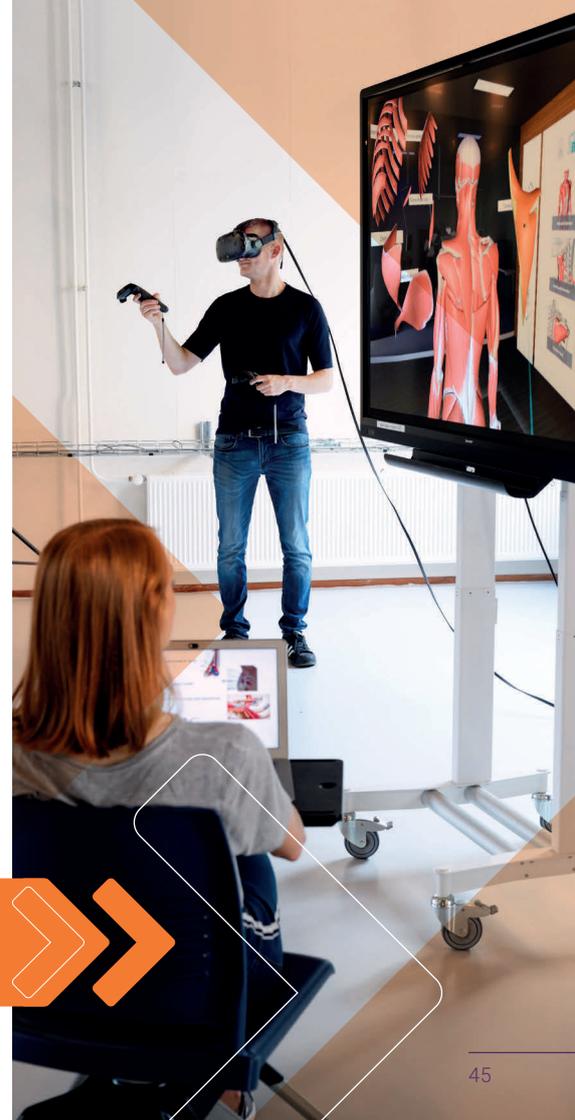
PHYSIOTHERAPY (BSc)

The Physiotherapy study programme offers physiotherapists in training a solid foundation of knowledge (in Anatomy and Physiology), assessment and therapeutic skills training and the opportunity to deepen and broaden their knowledge in specific areas.

In society, we are increasingly seeing the development and broadening of the role of the physiotherapist with regard to healthcare technology (virtual and augmented reality, ultrasound), inter-professional collaboration with other healthcare professionals, and the counselling of patients in self-management. Within the study programme, physiotherapists in training are free to choose those fields in which they wish to deepen or broaden their knowledge, and gain a greater understanding of the developments in physiotherapy and healthcare. The Physiotherapy study programme trains future-proof and enterprising physiotherapists who are thoroughly prepared for the rapid changes taking place in society and healthcare and who have an eye for the quality of care, starting from evidence-based practice. The physiotherapist in training is becoming a critical healthcare professional with an investigative and entrepreneurial attitude. The educational environment with its reliance on skills labs, Explore Labs and Living Labs, adds real value for both students and staff.

EINDHOVEN BACHELOR OF SCIENCE

fontys.nl/en/physiotherapy



PRACTICAL INFORMATION



INFO

STUDENT DESK



FLYBY CAREER DAY
LOOKING FOR INTERNSHIP
OR GRADUATION?
MEET OUR PARTNERS AND
DISCOVER YOUR OPTION!

Vontys

Vontys

1000+ PARTNERS
1000+ OPPORTUNITIES
1000+ EXPERIENCES

By **FlightTeam**





PRACTICAL INFORMATION

Admission requirements

Visit fontys.nl/en/admissions to find your level of education in the list of non-Dutch certificates, compared with the Dutch educational system.

English language

All our English-taught programmes require a minimum level of proficiency in the English language. Check out the programme of your interest for details on fontys.nl/en/practicalinformation.

How to apply

Specific admission requirements and application procedures apply to each study programme. Please refer to the study programme of your choice for further instructions. If you meet all the admission requirements, you will be invited to apply for enrolment via the Dutch enrolment website studielink.nl.

Application deadlines

For each programme at Fontys University of Applied Sciences, specific admission requirements and application procedures apply. Please refer to the course programme of your choice for further instructions. If you meet all the admission requirements, we will invite you to apply for enrolment.

More information about the application deadlines is available on our website.

Tuition fees

Fontys tuition fees indicator helps you to determine the tuition rate for your situation. More information fontys.nl/en/tuitionfees.

Please check information about tuition fees per master's programme at fontys.nl/en/masters.

Accommodation

Please be aware that finding a place to live is your own responsibility. Unfortunately, it is not easy to find accommodation in the Netherlands, so start your search early. More information fontys.nl/en/accommodation.

Living expenses

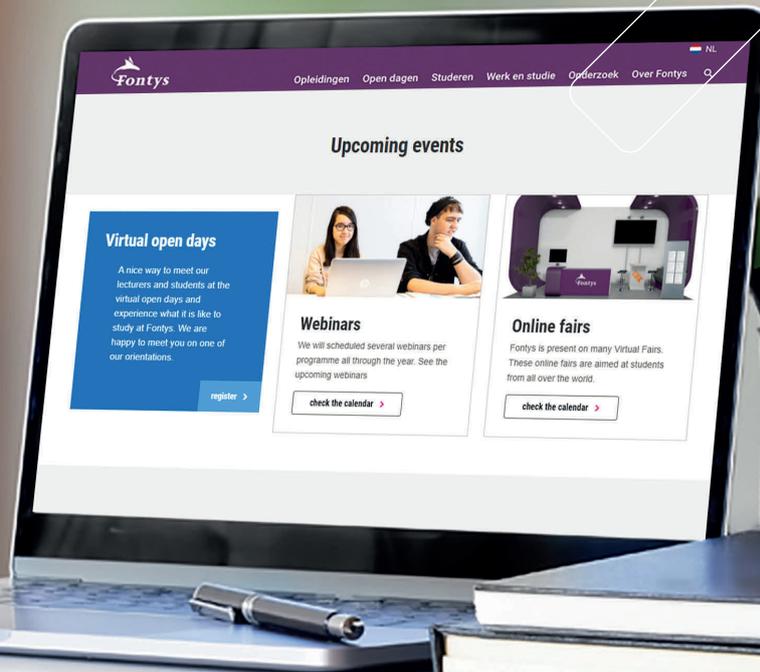
(all-inclusive):	€ 900 - € 1,100 per month
Accommodation costs (rent):	€ 500 - € 800 per month
Visa costs:	€ 210 first year
All-in insurance (optional / highly recommended):	€ 195 - € 442 per year

The actual costs will depend on the city where your study programme is based, the costs included in the accommodation rent and your personal expenditure.



FONTYS.NL/EN/MEETUS

CAN WE HELP YOU
MAKE THE RIGHT
STUDY CHOICE?





#WEAREFONTYS

