

# Information Technology

## **B Information Technology, Bachelor's Degree (4 years), Full-time**

**Are you interested in security and the Internet of Things? Would you like to learn computer programming languages and work with the latest technology? Then Information Technology is the right choice for you! With this degree, students can continue in any direction in the field of information and communication technology.**

- Outstanding job prospects in the Dutch and international IT markets.
- Study and work in a rapidly developing, information-rich environment.
- Minor Certified Ethical Hacking at NHL Stenden is unique in Europe.
- Practical assignments in small groups.
- Opportunity to work with innovative technology, including 3D printers, home automation and robotics.

## **Overview**

### **Degree**

- Bachelor of Science

### **Study start**

- September

### **Location**

- Emmen

### **Language**

- English

### **Standard duration**

4 years

### **Credits**

This course amounts to a total of 240 ECTS.

### **Fees**

- EU students (per year) € 2,143
- NON-EU students (per year) €8,350

[View all costs](#)

## Application deadlines

EU: 15 August

Non-EU: 31 May

## Internet of Things Lab

The IT programme in Emmen makes use of the Internet of Things Laboratory (IoT Lab). It has the latest innovative devices available, including a Microsoft Surface Hub, Virtual Reality equipment, and robots. In addition to this lab, there is also MyConcept, a Fabrication Laboratory where students can use 3D printers to print their designs.

## Careers

Graduates in Information Technology have excellent career prospects in their chosen field, with areas of employment including the corporate sector, government and not-for-profit organisations in the Netherlands and elsewhere. We have contact with many professional companies where students can do their internships, such as Microsoft, Google, IBM, ING Group and ABN AMRO.

## Challenging work

In a world in which automation and digitisation are becoming increasingly important, you will hold all the cards as an Information Technology graduate. Working in a challenging and exciting field, your professional expertise will help companies and other organisations to better serve their customers by developing software, designing multimedia or building an IT network.

## Careers open to you after graduation include:

- **software engineer:** develops specific software for companies and institutions, so that their clients can be better served and their market share increased;
- a **developer** of new electronic payment systems, popular games, or in the field of web development;
- **IT Consultant**, either self-employed or at a company;
- **Certified Ethical Hacker:** serves as an advisor on IT security matters.



## Admission requirements

### Academic Requirements

To be admitted to one of the bachelor programmes you have to meet certain admission requirements. NHL Stenden University of Applied Sciences recognises the following general international qualifications:

International Baccalaureate (IB) Diploma or European Baccalaureate Diploma

High School diploma from an accredited institution

Four GCSE/GCE 'O' level passes (final grade A, B or C) and two 'AS' level passes.

These six passes combined must all be in different subjects.

Associate, Bachelor or Master Degree

Furthermore, some of our bachelor programmes demand additional entry requirements. These can be found in the [list of admissible diplomas](#). If your diploma is not mentioned in this list, please contact our Information and Registration Centre.

### 21+

If you are aged 21 or older and would like to enrol at NHL Stenden University of Applied Sciences, but do not currently meet the admission requirements, you are invited to register for the entrance examination.

Read more information regarding the [21+ entrance examination](#).

### Language Requirements

All non-EEA applicants are required to submit an English proficiency test with their application. Exceptions are made for students, who have had their preparatory education in a country where English is the official working and educational language. The language requirements for EEA students are the same as for Dutch students. If [your diploma is listed here](#), the additional English language test is not required.

NHL Stenden University of Applied Sciences accepts three kinds of official language tests: IELTS, TOEFL and the Cambridge Certificate of Proficiency in English.

- [Academic IELTS 6.0](#) (with a minimum of 5.0 for each skill).
- [TOEFL 550](#) (paper based), 213 (computer-based) and 80 (internet based). Original test results must be sent directly from the Educational Testing Service to NHL Stenden. The TOEFL institution code for NHL Stenden is 9215.
- Cambridge ESOL score FCE-C (169, or higher).
- [TOEIC](#) 670 (Listening and Reading) **and** 290 (Speaking and Writing).

[View the comparison](#) between the different scores.

Please note: If you do not have the appropriate level, it is possible to enrol in our [English Preparatory Language Course](#).

## About the course

**The course in Information Technology sheds light on areas such as software, games, web technology, company networks, databases and programming languages. You will be trained as a specialist in these areas over the course of the four-year programme.**

### First Year

#### **Introduction to the industry**

The first year is designed to provide you with a solid foundation in your chosen field. In small groups you will work on practical assignments, which may involve anything from designing an online store to creating a multimedia presentation for a company to developing an all-new game. Gradually, you will discover all the specialisations available, so you can pursue the major that best meets your needs and interests.

#### **Topics include:**

Webdevelopment, databases, digital graphic design, information management, programming, networkin, security.

#### **General skills:**

Intercultural communication, study career coaching, mathematics, communication.

### Second Year

#### **More in-depth study**

In your second year, you will develop more focused and detailed knowledge of areas such as programming languages and databases. You will work on real-life cases from real companies.

#### **Courses include:**

Advanced programming, media production, IT service management, databases, operating systems, data processing, algorithms and data structures, testing, JavaScript

### **General skills:**

Research, English, study career coaching.

## **Third Year**

### **Internship and practical experience**

During this year, you will continue to put your knowledge and experience into practice and half of the year is spent on an internship in the Netherlands or another country of your choice. This will help you to gain a broad understanding of the various career options in your field.

You may do your internship at companies like Thales, Topicus and HEXA Innovative Energy Solutions (Fortaleza, Brazil). They carry out internship assignments in the area of app development for business purposes, development of automated test set-ups for security testing, development of business portals, or game development.

## **Final Year**

### **Final stage**

This year you begin your major, for example:

- Certified Ethical Hacking
- Secure Programming
- IT in Business
- Advanced Java
- [Integrated Digital Marketing](#) (Bangkok)

You will also do a short-term internship. Furthermore, you will be taking on a six-month, practical final-year project for a business or organisation. This might even end up being your future employer! Students graduate at companies like KPN, Mydatafactory, Favoritwizard Lda, Neobird GmbH and work on assignments in the area of machine learning, gaming and web applications.

## **Specialisation**

Information Technology covers a wide range of relevant and interesting topics. In your fourth year, you will have the option to specialise by taking a number of minors: these are electives in which you focus on a specific subject or expand your knowledge by taking an additional subject. This allows you to truly take charge of your education by ‘customising’ your course.

You can do these minors at the Emmen branch or you can also choose from minors offered by other courses and universities of applied sciences – this is all part of broadening your academic skills. Information Technology minors on offer in Emmen:

- Certified Ethical Hacking
- Certified Secure Programming
- IT in Business
- Advanced Java
- [Integrated Digital Marketing](#) (Bangkok)

### **Certified Ethical Hacking**

NHL Stenden is the only university of applied sciences in Europe to offer the minor Certified Ethical Hacking. Information Technology covers a wide range of relevant and interesting topics. In your fourth year, you will have the option to specialise by taking on a number of minor subjects: these are electives in which you focus on a specific subject or expand your knowledge by taking on an additional subject. This allows you to truly take charge of your education by customising your course to suit your interests and needs. You can do these minors at the location in Emmen or you may also choose from minors offered by other courses and universities of applied sciences. This is all part of broadening your academic skills.