

The Netherlands

UNIVERSITIES OF APPLIED SCIENCES

*The Bridge between Knowledge
and Professional Practice*



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Introduction

The Netherlands: a small, densely populated country on the west coast of the European mainland. For many centuries now, it has been a centre of international trade. This is where prominent multinationals like Shell, Philips and Unilever were founded. This is where 685,000 SMEs generate an annual turnover of €450 billion. This is where the *compact disc* and the *Wi-Fi* were invented. The Netherlands: a country of new opportunities and innovation.

In the years and decades ahead, the Dutch knowledge economy will be strengthened further. The knowledge level will continue to increase and companies, institutions and authorities will profit from the country's strong knowledge sector even more than they have done before. There is a key role here for the universities of applied sciences. They form the link between knowledge and application.

This brochure will outline Dutch higher professional education and the social function that universities of applied sciences have in the Dutch knowledge economy.

Dutch Higher Education

Dutch higher education consists of two types of study programmes: profession-oriented and research-oriented programmes. Profession-oriented programmes are generally provided by universities of applied

sciences (in Dutch ‘hogescholen’). Research-oriented programmes are provided by research universities. The universities of applied sciences and research universities together make up the higher education sector; the universities of applied sciences are usually referred to in Dutch as “*hoger beroepsonderwijs (hbo)*”; the research universities are referred to as “*wetenschappelijk onderwijs (wo)*”.

The Bachelor-Masters structure (BaMa) was introduced to the Netherlands in 2002. Students can use the Bachelor title after the successful completion of a four-year full-time profession-oriented Bachelor programme or a three-year full-time academic university programme. A graduate of a profession-oriented Bachelor programme is sufficiently equipped to be able to work at a high level, but can also progress to a Masters study.

In the Netherlands, general secondary education – which precedes higher education – lasts five or six years. Students with a five-year prior education can enrol for a four-year profession-oriented Bachelor programme. Students with six-years of prior education will be considered capable of completing a Bachelor programme in three years. The same applies for students wanting to continue their studies at a university of applied sciences after completing a programme in the same specialisation in senior secondary vocational education.

Universities of applied sciences have been able to offer students Masters programmes since 2002. The range of programmes available is growing rapidly. In most sectors, Masters programmes are offered for students with several years’ work experience. In the arts, education, healthcare and social and community work sectors, these Masters programmes are funded by government. In the economics sector in particular, these Masters programmes (MBAs) are full-fee paying. The Dutch universities of applied sciences are working hard to significantly extend the range of programmes in the years ahead.

Universities of Applied Sciences

Higher professional education in the Netherlands actually consists of various programmes that are provided by universities of applied sciences in various shapes and sizes. Some universities of applied sciences are relatively small and monosectoral. They focus on one broad field. This might be design, agriculture or a teacher training programme, for example.

However, in general, universities of applied sciences are multisectoral. They sometimes have more than 30,000 students. In institutions like this, the annual intake figure for new first-year students is approximately 8,000. This figure includes several hundred foreign students.

Students can choose from a very wide range of programmes, varying from a Bachelor in economics, technology, social work, physiotherapy, art, journalism or teaching, to a Masters in advanced nursing practice, teacher training, architecture or business administration.

Number of Students in Higher Professional Education (2006), By Sector

SECTOR	2006
AGRICULTURE	7,599
ECONOMICS, BUSINESS & MANAGEMENT	144,511
HEALTH CARE	31,525
TEACHER TRAINING	68,650
SOCIAL WORK	39,219
ENGINEERING	58,088
FINE AND PERFORMING ARTS	20,145
TOTAL	369,737

THE PHYSICIAN ASSISTANT MASTERS PROGRAMME

In 2004, the Physician Assistant Masters programme was launched. The Physician Assistant (PA) role is a new profession for the Netherlands. A PA gains basic medical skills from throughout the entire medical domain and also immerses himself in a specialisation of his choice.

Willemijn Platvoet works at the UMC St. Radboud Nijmegen, in the neurosurgery department. She is halfway through the PA Masters programme. What made her choose this Masters programme?

Willemijn: 'I did a Bachelor in Nursing. After working as a nurse for several years, I wanted to do a job with more of a medical perspective. This Masters programme appealed to me because it combines work with a placement and tuition.'

Willemijn now works in the neurosurgery department, where she will probably continue to work when she finishes her study. Her work includes visits, admissions, releases, but also the performance of minor interventions, such as lumbar punctures and the insertion of lumbar drains. 'There is a lot of appreciation for the PAs within the hospital: we can take over many tasks from the doctors and ensure more continuity.'

Universities of Applied Sciences and Research Universities

There are 41 universities of applied sciences and 14 research universities in the Netherlands. In 2006, almost 370,000 students were enrolled for higher professional education. This is almost two-thirds of all students in higher education. In 2006, the new-student intake consisted of more than 112,000 first-year students. They like the professional orientation and diversity of the various higher professional education programmes.

Higher professional education is continuing to grow steadily. In the last 10 years, the number of students enrolled for programmes at universities of applied sciences has increased by 34%.





HISTORY OF UNIVERSITIES OF APPLIED SCIENCES

In the Netherlands, organised and structured higher education started with the foundation of Leiden University in 1575. The origins of the present universities of applied sciences lie in the establishment of the Royal Academy of Art in The Hague on 29 September 1682. In the 19th century, the so-called commercial schools (handelsscholen) were established, which were intended to cater for the demand for training from businesses. Back then, education at a research university was reserved for the lucky few.

In the 20th century, the government tightened its hold on higher professional education. Higher education was to be available for everyone. This had major consequences. The most important of these was the expansion of higher professional education in the 1980s. In 1983, there were still 375 institutions, in many case monosectoral institutions. Programmes varied from nursing and conservatories to higher technical programmes. Following a far-reaching merger operation at the end of the 1980s, this number was reduced dramatically. In 2006, there were still 41 universities of applied sciences. However, the difference with the previous situation is that these universities of applied sciences have now often become multisectoral institutions.

New Role and Tasks for Universities of Applied Sciences

Dutch society is changing and the universities of applied sciences are changing too. Besides providing high-quality higher professional education programmes, universities of applied sciences are expected to become knowledge partners for regional, national and international professional practice. Universities of applied sciences are also responding proactively to important social themes like sustainability, social integration, ageing and safety. Added to this, universities of applied sciences want to play an important role in strengthening the Netherlands innovative force. Applied research is playing an increasingly greater role in this. To achieve this, the universities of applied sciences introduced professorships in 2001 and – since 2005 – allocated specific resources for applied research.

Close Ties between Universities of Applied Sciences and the Business Sector

The most important added value provided by universities of applied sciences is their close alignment to professional practice. They have traditionally always had close ties with the business sector (in this context, this also includes employers in the public sector). Actually, many universities of applied sciences were actually founded by the business sector. Higher professional education is provided by professionals who have either worked within their tuition discipline or are still doing so.

All higher professional education programmes have committees in which representatives from the educational institutions and regional businesses work together to ensure the relevance of the programmes provided.

At a national level, an agreement between the Netherlands Association of Universities of Applied Sciences (*HBO-raad*) and the employers' organisations ensures alignment between national networks of educational programmes (education) and organisations representing branches of industry in the same field (the field of work).

Professional Practice Central to Education

The students of the universities of applied sciences familiarise themselves in depth with their future professional practice during the course of their four-year programmes. Approximately 25% of a student's study will consist of a practical component in a company or organisation, such as a placement or graduation assignment. Incidentally, a study may also be available on a cooperative education basis, as part of which study and work are seamlessly intertwined during the course of the programme.

This interaction between universities of applied sciences and the business sector is the best guarantee of a more highly educated labour force that knows what the business sector wants. The truth of this is clear. Ninety percent of the students of universities of applied sciences who graduated in the summer of 2004 found work within three months. The business

'UNIVERSITIES OF APPLIED SCIENCES ARE INCREASINGLY BECOMING ACTIVE IN THE PERFORMANCE OF APPLIED RESEARCH'

Chiel Renique is Secretary for Education at VNO-NCW. The Confederation of Netherlands Industry and Employers (VNO-NCW) is the biggest employers' organisation in the Netherlands. The VNO-NCW represents the shared interests of the Dutch business sector at both a national and international level.

Renique: 'Collaboration between universities of applied sciences and the business sector is arranged well in the region. Placements and graduation assignments mean that there are many direct contacts between companies and universities of applied sciences. The field of work is also increasingly participating in consultations on curriculum development. We also applaud the fact that universities of applied sciences are increasingly bringing in people from the business sector as guest lecturers. Universities of applied sciences are also becoming more and more active in the performance of applied research; we would like to see this being applied on an even bigger scale. Placements and graduation assignments can play an important role here.'

PROFESSORSHIPS

Professorships and research groups within universities of applied sciences link together education, professional practice and practice-oriented research in socially relevant fields including, for instance, innovation in engineering. These applied research groups are led by a professor and have approximately 10 lecturer-researchers and external experts. Students will often be involved in (applied research) projects too, as part of their studies. Research groups share knowledge with companies and institutions, carry out applied research and develop new knowledge. They maintain collaborative relationships with companies and institutions at a local, regional, national and international level.



‘HIGH QUALITY, LOW TUITION FEES’

Wu Ting studies environmental science. ‘I chose environmental science because of the serious environmental problems my country has due to the economic development there. I want to improve the situation. The main reason why I decided to study in the Netherlands is that its Environmental Science programme was well-known in China, particularly in the field of water management. The relatively low tuition fees there in comparison with countries like the USA and England and the high quality of education in Holland in comparison with other European countries also made me choose Holland.’

What is the biggest difference between studying here and in China? ‘Chinese universities have a strong focus on ‘theory-based education’ and students have to take a lot of written exams. Higher professional education in the Netherlands focuses more on practical problem solving and there are fewer written exams. The placements are very important too. I experienced this as a fruitful period. I graduated on an assignment on sludge dewatering in sewage sludge, with an international consultancy specialising in civil engineering and the environment. I learned a lot. I improved my knowledge of my specialisation and also enhanced my collaboration and communication skills.’

sector is profiting from this too. The students often contribute knowledge and innovation to regional business.

International Opportunities

According to an estimate by the Netherlands Organisation for International Cooperation in Higher Education (Nuffic), the number of foreign students at universities of applied sciences or research universities had risen to approximately 30,000 in 2005. A growing number of these foreign students are coming from China. This is the consequence of European integration and the acquisition policy pursued by Dutch universities of applied sciences and research universities.



‘DUTCH UNIVERSITIES OF APPLIED SCIENCES HAVE A STRONG HANDS-ON MENTALITY’

Profound is a platform for universities of applied sciences that is involved in development assistance. In African and Asian countries like Zambia, Vietnam and Indonesia, Profound supports higher education through its involvement in curriculum development, the creation of institutes and organisations, the restructuring of education and the development of policy.

Frans Kuipers is the Chairman of Profound. Kuipers’ experience is that higher education in the countries that Profound has contact with can be aligned better with the field of work for graduate students. Placements do not form a standard part of students’ studies.

Kuipers: ‘In Ghana and Benin, for example, graduates from the universities have a good theoretical grounding, but still have little practical experience. As a result, they cannot be deployed directly by the business sector. Dutch universities of applied sciences have a strong hands-on mentality. Profound is working with these – and other – West African countries and is helping to develop higher professional education there.’

For higher professional education, this active acquisition of students from abroad means education in English and more collaboration over the border. Incidentally, Dutch higher education is still striving to encourage more students from abroad to come to the Netherlands. And this is also possible, through increased mobility for students, good grant programmes and fewer complex migration procedures. This also offers increasingly more Dutch students of universities of applied sciences the opportunity to gain experience abroad. At present, this applies to approximately 20% of all students.

Incidentally, in various sectors – such as hotel management, fine and performing arts and agriculture– there has always been an international approach. Today’s trend is to export higher professional education to

countries where there is a great need for profession-oriented programmes that not only promote enterprise, but which can also strengthen local SMEs. This is something that everyone – including Dutch higher professional education – benefits from.

The Netherlands Association of Universities of Applied Sciences

Since 1975, the interests of the 41 affiliated universities of applied sciences – with approximately 35,000 members of staff and 370,000 students – have been represented by the Netherlands Association of Universities of Applied Sciences (HBO-raad). All of the affiliated universities of applied sciences work together in this association. The object of the Netherlands Association of Universities of Applied Sciences is to develop higher professional education and represent the collective interests of its members.

If the Netherlands wants to achieve the ‘Lisbon’ objective for a successful knowledge economy, as much as 50% of the labour force must have participated in higher education by 2020. There is an important task here for the universities of applied sciences, as these are still able to grow, whereas the research universities already have a maximum intake from pre-university education. This increase must come particularly from a higher intake from senior secondary vocational education and from employees and re-entrants wanting further training and retraining. Universities of applied sciences will continue to establish, improve and strengthen the connection between knowledge, on the one hand, and the business sector and public institutions, on the other. By doing so, universities of applied sciences contribute to a successful knowledge economy and ensure the provision of *Knowledge that works!*