Hasselt University
A creative hub in the ‘international innovation web’
3 Message from the Rector

4 Hasselt University: knowledge in action

5 Hasselt: dynamic student town

6 Education

7 Bachelors and Masters

8 International master programmes

8 Master of Science in Statistics

12 Master of Science in Management

14 Master of Science in Transportation Sciences

16 Master of Science in Transportation Sciences by distance learning

18 Master of Science in Biomedical Sciences

22 Admission Requirements

24 Financial Aspects

25 Research & Innovation

26 Research

30 PhD@UHasselt

31 Making research work
Message from the Rector

Interested in acquiring in-depth knowledge and developing professional skills? Dreaming of a successful career as a researcher? Looking for an excellent partner to collaborate with? Then you’ve come to the right place at Hasselt University!

Our university is not an island of knowledge, but rather a creative hub in a complex economic and social network consisting of large and small companies and organizations, research institutes, and other universities. We see this network as an ‘international innovation web’. Everybody in our university - students, teachers and researchers - is a vital part of this network and participates actively in it. As the world is becoming more and more globalised our graduates often end up in organizations that are active all around the world and as a university we want to prepare our students as best we can for an exciting career, in Belgium or abroad. This is why Hasselt University does not only focus on teaching knowledge, but also on lifelong employability skills such as teamwork, time management, communication skills and international experiences. By doing so we put what our university is all about, i.e. ‘Knowledge in Action’, into practice.

There are numerous reasons why Hasselt University attracts many international students & researchers. One of them is our excellent staff, who consist of leading authorities in both research and education. Another advantage is our innovative approach to university education. Our programmes are accredited by the NVAO (the Accreditation Organization of the Netherlands and Flanders) and multiple facets of these programmes have been awarded the very highest rank: excellent. They set the standard for an international level. Last but not least, the city of Hasselt is a great place to soak up student life and prepare for your professional career.

This brochure provides you with basic information on our university and programmes. We are looking forward to welcoming you.

Prof. dr. Luc De Schepper
Rector of Hasselt University
HASSELT UNIVERSITY: KNOWLEDGE IN ACTION

Hasselt University is an innovative university which has a pronounced international orientation. Founded in 1971, it is the youngest university in Belgium. Hasselt University stands for excellence in education, top research in spearhead fields and active commitment to innovation and entrepreneurship. The overall objective is to combine academic excellence with economic and social relevance.

The faculties of Sciences, Engineering Technology, Medicine and Life Sciences, Business Economics, Law, and Architecture and Arts offer attractive undergraduate, graduate and PhD programmes at a high academic level. The courses are research-led and students participate in the university’s research programmes from an early stage. Moreover, knowledge and skills are frequently related to concrete real life situations. The programmes are supported by a range of innovative and effective teaching and learning methods. They also stimulate students to develop their full potential. Hasselt University aims at self-assured and independent professionals, equipped with the necessary skills for analysing and solving problems, working in multidisciplinary teams, chairing discussions, presenting ideas …

The research policy of Hasselt University focuses on top research in a number of spearhead fields including materials for (bio)electronics and nanotechnology, biostatistics, cleantech, environmental sciences, ICT, life sciences, open innovation and small businesses, transportation sciences and traffic safety. In these multidisciplinary domains, the research institutes of Hasselt University combine fundamental and applied research, including contract research for industry and organizations. Much attention is paid to increasing the valorization of research results and the starting up of spin-off companies. Hasselt University assumes an active role in stimulating innovative economic activities in the region, including the co-ordination of regional thematic company clusters in domains such as life sciences, renewable energy and cleantech.

Hasselt University has an extensive international network and develops joint programmes with universities in Belgium and the Netherlands. Our international students and researchers come from all over the world.
Hasselt University is situated at the heart of Europe, within a stone’s throw of cities such as Brussels, Liège (French speaking part of Belgium), Aachen (Germany) and Maastricht (the Netherlands), while Paris and London are within a couple of hundred kilometres.

Hasselt University has two campuses: a green campus outside the city of Hasselt and a campus in town. Hasselt has a population of almost 75 000 and is the administrative and commercial centre of the province.

Hasselt is a dynamic student town where young people feel comfortable. It organises all kinds of theatrical performances, music and pop festivals, either open air or in the well-known Ethias Arena. In addition, there is a large cinema near the campus. It is worth noting that all public transport from the campus to the city centre is completely free of charge for students, staff members and guests of Hasselt University. To get a genuine taste of Hasselt you can visit the numerous cosy restaurants and cafés dotted all over town. You can visit the Jenever (Gin) Museum, St. Quentin’s Cathedral, the prestigious Fashion Museum, the Municipal Museum and the Virga Jesse Basilica, the beautiful Japanese Garden and the town’s many green oases. Hasselt is not only the capital of taste but also of the real ‘bon vivant’!
BACHELORS AND MASTERS

Hasselt University is located in the region of Flanders, in the Dutch-speaking part of Belgium. Our bachelor programmes are therefore mainly taught in Dutch. However, master programmes can be taught both in English and in Dutch. In addition, a number of courses have been set up in English for our exchange students. A complete bachelor programme consists of 180 ECTS credit points, or three years of full-time study. A complete master programme consists of 60 or 120 ECTS credit points, which is the equivalent of one or two years respectively of full-time study. At present, Hasselt University offers study programmes, including PhD programmes, in six faculties.

Faculty of Sciences
Hasselt University organises up-to-date bachelor programmes in Biology, Chemistry, Physics and Mathematics. Moreover it offers a Bachelor and Master of Science in Information Sciences. Within the framework of the co-operation with Maastricht University, a Master of Science in Artificial Intelligence and a Master of Science in Operations Research are offered (in English). Furthermore, we offer an English Master of Statistics with specializations in Biostatistics, Bioinformatics, Epidemiology & Public Health Methodology.

Faculty of Engineering Technology
Hasselt University organises, in close collaboration with the Catholic University of Leuven (KU Leuven) bachelor and master programmes in Industrial Sciences. The bachelor programme leads to a Bachelor diploma of Science in Industrial Sciences with specializations in Construction, Chemistry, Electromechanics, Electronics-ICT, Nuclear Technology and Packaging Technology. The different master programmes lead to the diploma of Master of Science in Industrial Sciences in the fields of Construction, Electromechanics, Electronics-ICT, Energy, Chemistry, Biochemistry, Nuclear Technology and Packaging Technology.

Faculty of Medicine and Life Sciences
Hasselt University organises excellent (bio) medical education at different levels: bachelor (Medicine and Biomedical Sciences) and master (Biomedical Sciences). The Master of Science in Biomedical Sciences is organised in close collaboration with Maastricht University and has specializations in Clinical Molecular Sciences, Environmental Health Sciences and Bioelectronics and Nanotechnology. Courses are offered in English. We also organise a Bachelor and Master of Science in Rehabilitation Sciences and Physiotherapy with specializations in Neurological Disorders, Musculoskeletal Disorders and Mental Health. For this master, our partner in education is KU Leuven (Catholic University of Leuven).

Faculty of Business Economics
Hasselt University offers bachelor and master programmes of Science in Applied Economic Sciences, Business Engineering and Business Engineering in Management Information Systems. Moreover, it organises the Master of Science in Management (in English); students can specialise in Management Information Systems or International Marketing Strategy. Hasselt University also organises a teacher training course in the field of Applied Economic Sciences. In the field of Transportation Sciences, we offer both a bachelor and a master degree. Traffic Safety and Mobility Management are the specializations of this master, which is unique in Belgium. Courses can be taken on campus or by distance learning and are taught in English.

Faculty of Law
Hasselt University organises a Bachelor and Master of Laws. Our emphasis on international and public law is unique. The education programme focuses on international and European law, judicial protection and mediation, and provides a platform for the comparison of European and various national legal systems. Thanks to assignment and problem-based learning our graduates develop skills that are particularly useful for their career. Our partners in education are universities with well-known traditions: Maastricht University and KU Leuven (Catholic University of Leuven).

Faculty of Architecture and Arts
Hasselt University presents a Bachelor and Master programme of Science in Architecture and Interior Architecture. The contents of both curricula stand close to the profession, but will equally train designers to approach space - in all its scales - conceptually. On a master’s level we offer research seminars, which are also available for international students, on aspects of universal design, adaptive re-use, participation, retail design & scenography.
The need for well-trained biostatisticians, bioinformaticians and epidemiological and public-health scientists is ever increasing, enhanced by the scientific revolution in molecular biology and genetics, and its impact on health and the environment. Hasselt University’s Master of Statistics with specializations: Biostatistics, Bioinformatics and Epidemiology & Public Health Methodology, keeps abreast of such evolutions. The master programme combines a solid study of principles of applied and biostatistics with up-to-date information on topics such as clinical trials, public health, longitudinal data, survival analysis, genetics, survey methodology... The specialization in Bioinformatics makes it possible to keep an even closer pace with the more specific professional needs and skills required due to the development of novel experimental techniques in molecular biology and genetics.

Hasselt University’s Master of Statistics acquired accreditation from the prestigious Royal Statistical Society.
Biostatistics

Fast facts

Programme
 Master of Statistics
Specialization
 Biostatistics
 Biostatistics ICP
Duration
 2 years full-time
Start date
 October
Learning method
 Lectures, compulsory reading, computer practice, problem-based learning, group and individual projects
Assessment method
 Written exams, projects, essays, presentations
Options:
• Individual (reduced) programmes are possible. You are free to combine courses from different specialisations to create your own profile. Requests for an individualised programme and any applications for exemptions should be formally submitted to the Examination Board, along with a clear motivation backed up by the requested documents.
• Scholarship for the ICP Biostatistics of the Flemish Interuniversity council (VLIR-UOS). Candidates must not be over 35 years of age. Their fully completed application form and requested documents should be returned to the VLIR administration in Brussels no later than the 1st of February. Candidates will be notified by VLIR-UOS after the meeting of the Selection Committee (May-June). More detailed information on requirements and application forms is available on: www.uhasselt.be/master-of-statistics.

Further information
Website: www.uhasselt.be/master-of-statistics
Programme coordinator: Prof. Dr Geert Molenberghs
E-mail: geert.molenberghs@uhasselt.be
Programme coordinator ICP: Prof. Dr Paul Janssen
E-mail: martine.machiels@uhasselt.be

―This programme ensures a promising and successful career.―
Samuel Iddi, Ghana

Advantages of the Master of Statistics: Biostatistics
In the specialization Biostatistics/Biostatistics IPC sound training in modern statistical methodology, necessary for the design and analysis of biomedical and epidemiological studies, is provided. Core biostatistics courses are Longitudinal Data Analysis, Survival Analysis, and Clinical Trials. The specialization in Biostatistics has a strong research orientation. The programme of students from developing countries, with a scholarship sponsored by the University Development Cooperation Section of the Flemish Interuniversity Council (VLIR-UOS), is adapted to their specific needs and interests in the Biostatistics ICP specialization.

Biostatistics: the right choice for you?
As well as the standard admission requirements (see page 22) you should:
• Hold an academic bachelor degree obtained from a Belgian university, in mathematics, physics, computer sciences, chemistry, biology, life sciences, (bio, business, civil) - engineering to be directly admitted.
• Hold a bachelor degree in mathematics, physics, computer sciences, chemistry, biology, life sciences, (bio, business, civil) -engineering, medicine, sociology, psychology, artificial intelligence, biotechnology from other universities, with a basic but sufficiently strong background in mathematics and statistics. The programme’s Examination Board will evaluate each application individually as regards the applicant’s academic record. Depending on the diploma obtained previously, students may have to enrol in a preparatory programme.

What are your career prospects?
Over the years graduates have found positions in:
• biomedical research institutes
• the pharmaceutical industry
• government
• healthcare
• academia (PhD)
• ...

Course outline
www.uhasselt.be/en
www.uhasselt.be/studyguide/
**Bioinformatics**

**Fast facts**

**Programme**
- Master of Statistics

**Specialization**
- Bioinformatics

**Duration**
- 2 years full-time

**Start date**
- October

**Learning method**
- Lectures, compulsory reading, laboratories, problem-based learning, group and individual projects

**Assessment method**
- Written exams, projects, essays, presentations, skills tests

**Option**
- Individual (reduced) programmes are possible. You are free to combine courses from different specializations to create your own profile. Requests for an individualized programme and any applications for exemptions should be formally submitted to the Examination Board, along with a clear motivation backed up by the requested documents.

**Further information**
- Programme coordinator: Prof. Dr Tomasz Burzykowski
- E-mail: tomasz.burzykowski@uhasselt.be

**Advantages of the Master of Statistics: Bioinformatics**
The rapid evolution in scientific research in genomics and proteomics continuously requires new knowledge and skills. Besides a working knowledge of molecular biology, there is the need for a specialised knowledge of, and applied skills in database management, computer programming, statistical techniques and knowledge discovery & integration. The Master of Statistics: Bioinformatics prepares graduates in such a way that they:
- Are able to design and analyse experiments aimed at obtaining genomic and proteomic data.
- Possess the necessary knowledge and skills to develop, understand and create bioinformatics software tools and databases.
- Become self-assured, independent and assertive professionals for whom analysing an issue, structuring information, working in international and multidisciplinary teams, conducting and chairing discussions and presenting ideas have become second nature.

**Bioinformatics: the right choice for you?**
As well as the standard admission requirements (see page 22) you should:
- Hold an academic bachelor degree obtained from a Belgian university, in mathematics, physics, computer sciences, chemistry, biology, life sciences, (bio, business, civil) -engineering to be directly admitted.
- Hold a bachelor degree in mathematics, physics, computer sciences, chemistry, biology, life sciences, (bio, business, civil) engineering, medicine, sociology, psychology, artificial intelligence, biotechnology from other universities, with a basic but sufficiently strong background in mathematics/statistics and/or computer science. The Examination Board of the programme will evaluate each application individually as regards the applicant’s academic record. Depending on the diploma obtained previously, students may have to enrol in a preparatory programme.

**What are your career prospects?**
Over the years graduates have found positions in:
- biomedical research institutes
- biotech & pharma industry
- academia (PhD)
- ...

**Course outline**

"Specialising in bioinformatics at Hasselt University has changed my professional life. The content of our courses was always rich, we combined individual and group work and the experience we got through practice was huge."

Tatsiana Khamiakova, Belarus
Epidemiology and Public Health Methodology

Fast facts
Programme
Master of Statistics
Specialization
Epidemiology and Public Health Methodology
Duration
2 years full-time
Start date
October
Learning method
Lectures, compulsory reading, laboratories, problem-based learning, group and individual projects
Assessment method
Written exams, projects, essays, presentations, skills tests
Option
Individual (reduced) programmes are possible. You are free to combine courses from different specializations to create your own profile. Requests for an individualised programme and any applications for exemptions should be formally submitted to the Examination Board, along with a clear motivation backed up by the requested documents.

Further information
Website: www.uhasselt.be/master-of-statistics
Programme coordinator: Prof. Dr Marc Aerts
E-mail: marc.aerts@uhasselt.be

Advantages of the Master of Statistics: Epidemiology and Public Health Methodology
The specialization Epidemiology & Public Health Methodology offers a professionally-oriented programme with emphasis on epidemiology, modelling of infectious diseases and microbial risk assessment.

Epidemiology and Public Health Methodology: the right choice for you?
As well as the standard admission requirements (see page 22) you should:
• Hold an academic bachelor degree obtained from a Belgian university in mathematics, physics, computer sciences, chemistry, biology, life sciences, (bio, business, civil) -engineering to be directly admitted.
• Hold a bachelor degree in mathematics, physics, computer sciences, chemistry, biology, life sciences, (bio, business, civil) engineering, medicine, sociology, psychology, artificial intelligence, biotechnology from other universities, with a basic but sufficiently strong background in mathematics and statistics. The Examination Board of the programme will evaluate each application individually as regards the applicant’s academic record. Depending on the diploma obtained previously, students may have to enrol for a preparatory programme.

What are your career prospects?
Over the years graduates have found positions in:
• public health institutes
• food safety agencies
• epidemiology departments
• government
• academia (PhD)
• ...

Course outline
www.uhasselt.be/en
www.uhasselt.be/studyguide/

“This specialization at Hasselt University gives you the confidence to deal with real life statistical problems and gives you the opportunity to be taught by some of the best professors of statistics in the world.”

Abel Tilahun, Ethiopia
The Master of Management is an international one-year programme (in English). The programme is tailored to bachelor and master graduates who aim to widen their scope of international management as well as to deepen their knowledge of and capabilities in management information systems or international marketing strategy. This integrated management programme does not only apply to (business)economics students, but also to university graduates in non-economic subject areas, such as engineers, lawyers, psychologists …

Students can choose between the specialization in Management Information Systems (MIS) and the specialization in International Marketing Strategy (IMS).

Master of Management: specialization Management Information Systems (MIS)
The specialization MIS focuses on the organization and management of information systems in business functions and at corporate level. Graduates are prepared to become business analysts and consultants. Business computing was mostly used for relatively simple operations, such as tracking sales or payroll data. Over time, these applications have become more complex. Increasing amounts of information are stored and linked to previously separate information systems. As more and more data were stored and linked this information was analysed in further detail, creating entire management reports from the raw, stored data. The term ‘MIS’ describes these kinds of applications, which are developed to provide managers with information about sales, inventories, and other data that help in managing the company. Today, more than ever before, a company is a complex information system.

Master of Management: specialization International Marketing Strategy (IMS)
The major IMS focuses on (business-to-business) marketing strategy in an international context. Graduates gain insight in timely marketing strategies. Complementary to a more classic consumer marketing perspective, this major digs deep into marketing strategies, processes and the relationships between organizations – whether they produce high-tech products/services or not. While consumer marketing is highly visible and well developed in our Western hemisphere (e.g. due to explicit exposure and branding), marketing between organizations remains a rather unexplored arena. More even than in consumer marketing, this field requires an explicit international perspective.
Fast facts

Programme
Master of Management

Specialization
Management Information Systems
International Marketing Strategy

Duration
1 year full-time (+ preparatory programme for students with a non-economic degree)

Start date
September

Learning method
A combination of lectures, case studies & practical applications in the field of management

Assessment method
Master’s dissertation, papers and exams

Advantages of the Master of Management
The Master of Management programme aims to develop the following competences:

- to identify, define and solve economic and managerial problems in an expert manner;
- to apply theoretical knowledge and problem-solving methods & techniques in a flexible and creative way;
- to evaluate the available information in order to arrive at well-grounded solutions;
- to assess the feasibility of solutions in a multicultural context;
- to demonstrate communication skills which are appropriate to implement decisions;
- to make active contributions to the development of team projects.

Furthermore students have to acquire the learning competences and learning attitudes that enable them to take part in autonomous and lifelong learning. They can critically evaluate their own cognitive, affective, social, moral and ethical learning processes.

Master of Management: the right choice for you?
The Master of Management programme explicitly welcomes different groups: graduates from both economic and non-economic subject areas can enrol. Those from non-economic fields first have to pass a preparatory programme that is tailored to their specific background. The Master of Management programme should enable students to assume high-potential middle management functions, especially in the context of dynamic international markets. Participating students come from different countries around the world and as a consequence all courses are taught in English.

To accommodate students combining study and a professional career, the programme can be followed on a part-time basis. In the latter case, the individually tailored programme, including a proposal of the chronological order in which subjects will be studied, has to be formally submitted to the Examination Board.

All applicants should hold at least a university diploma or a diploma of higher education equivalent to a (academic) bachelor degree in economic or applied economic sciences, commercial and business sciences or equivalents of these degrees. For other bachelor degrees, the Examination Board will consider the applications individually. Participants who hold a master degree (in the domain of business economics) can be exempted from some courses. Participants from non-economic fields will have to pass a preparatory programme that is tailored to their specific background.

What are your career prospects?
This programme enables students to function optimally within organizations and to assume management functions. Competences such as project team work, creative business problem solving and management reporting will be developed. Alumni occupy prominent functions in companies all around the world. They testify to the dynamism of our high level training. Graduates with the specialization MIS become ICT consultants or ICT project managers. Graduates with the specialization IMS take up marketing management functions in high-tech multinational firms.

Further information
Website: www.uhasselt.be/master-of-management
Programme coordinator: Mrs Rachel Moreau
E-mail: rachel.moreau@uhasselt.be

Course outline
www.uhasselt.be/en
www.uhasselt.be/studyguide/
A modern and international transport system is important for moving people, goods and information in a regional, national and international context. Moreover it is connected to economic growth. A continuous increase in traffic volumes (passenger transport as well as freight forwarding transport) leads to major challenges concerning land use, impact on urban areas, traffic safety issues, traffic flow, atmospheric pollution and travel behaviour. The international Master of Transportation Sciences of Hasselt University is a multidisciplinary two-year programme. It trains students and practitioners to identify transportation and traffic safety problems and to come up with solutions, taking into account several aspects: economic, social, urban planning, environmental and infrastructural. Several transport and traffic safety issues are thus highlighted in an overall multidisciplinary perspective.

Since transportation is a cross-border field, it is also important to focus on the international aspects related to this domain. Students can choose between two specializations: Mobility Management or Traffic Safety.
MASTER OF SCIENCE IN TRANSPORTATION SCIENCES
ON-CAMPUS

Fast facts
Programme
Master of Transportation Sciences
Specializations
Mobility Management
Traffic Safety
Duration
2 years full-time
Start date(s)
September
Learning method
A combination of (guest) lectures, research projects, assignments (papers and presentations), study visits and (international) internship
Assessment method
Written and oral exams, final papers, master's dissertation, group participation, 100% attendance
Options
A part-time semi-distance learning programme

Further information
Website: www.uhasselt.be/master-of-transportation-sciences
Programme coordinator: Prof. Dr Tom Brijs
E-mail: nadine.smeyers@uhasselt.be

Advantages of the Master of Transportation Sciences
The Master of Transportation Sciences at Hasselt University is unique in that:

• It is a multidisciplinary master programme, which will focus on economic, social, urban planning, environmental and infrastructural aspects.
• It takes sustainable development into account.
• It focuses on transportation, as well as on traffic safety in an international context.
• It includes excursions during which students learn about and see the current best practice in solving transport problems in different countries.
• Students and practitioners from different countries exchange information about transport and traffic safety problems, solutions and strategies.
• Students can choose between a part-time semi-distance learning programme and a full-time on-site programme.

Master of Transportation Sciences: the right choice for you?
All applicants should hold at least a university diploma or a diploma of higher education equivalent to a (academic) bachelor degree in traffic safety, transportation/mobility management or equivalents of these degrees. For other bachelor degrees, the Examination Board will consider the applications individually. You will have to follow a preparatory programme during the first term of the first master year, depending on the diploma you obtained previously. This can be combined with the master programme.

What are your career prospects?
Graduates are working in different positions in different organizations:

• federal and local government bodies
• consultancies
• (public) transport companies
• medium-sized and large companies
• insurance companies
• interest groups
• research institutes

Course outline
www.uhasselt.be/en
www.uhasselt.be/studyguide/

“The Master in Transportation Sciences at Hasselt University is the only programme in Europe which is able to provide a multidisciplinary approach to the understanding of the complexity and further development of transport issues.”
Alessio Sitran, Italy
Fast facts

Degree
Master of Transportation Sciences Degree awarded by Hasselt University (Belgium). If students do not complete the full programme, they receive a certificate per completed module.

Specializations
Mobility Management
Traffic Safety

Start date(s)
September

Application deadline
15th of September

Participating universities
Hasselt University (Belgium), Maribor University (Slovenia), NHL University Leeuwarden (The Netherlands)

Learning method
A combination of (guest) lectures, research projects, assignments (papers and presentations), study visits and (international) internship, e-learning platform

Assessment method
Written and oral exams, final papers, master’s dissertation, attendance during the residential blocks

Planning
Maximum two modules per term

Further information
Website: www.uhasselt.be/master-of-transportation-sciences-by-distance-learning
Programme coordinator: Prof. Dr Tom Brijs
E-mail: nadine.smeyers@uhasselt.be

Advantages of the Master of Transportation Sciences, by distance learning
The Master of Transportation Sciences at Hasselt University is unique in that:

• It is a multidisciplinary study of transportation and traffic (safety), interacting with social, urban, economic, environmental and infrastructural parameters.
• It takes sustainable development into account.
• It focuses on transportation and traffic safety in an international context.
• It is a forum for exchanging information about transport and traffic safety problems, and formulating solutions and strategies with other practitioners from different countries.
• Distance learning: each term students will attend a one week residential block or attend classes from home with video conferencing technologies.
• It can be a starting point for new career opportunities in your current or new job.

Master of Transportation Science, by distance learning: the right choice for you?
We welcome students, employers and career-minded individuals, working in the field of traffic (safety) and transportation. Practitioners, who want to earn a specialised qualification and broaden/update their knowledge and work experience in respect of the rapidly changing transportation field, are our target group.
All applicants should hold at least a university diploma or a diploma of higher education equivalent to a (academic) bachelor degree. The Examination Board will consider the applications individually. You will have to complete a preparatory programme, depending on the diploma you obtained previously.
Organizational aspects

- The modules are organised according to a two-year cyclic schedule.
- To gain the master degree you must successfully pass 4 core modules, 2 specialization modules, an internship and the master's dissertation, accumulating 120 credit points (ECTS). In general, you will spend your first two years studying 6 taught modules and doing the internship. In your third and final year, you will work on and defend your master’s dissertation.
- To gain module certificates you must successfully pass one or more modules.
- Each term students have to attend a one-week residential block. Attendance of the residential block of a module is compulsory in order to be able to take part in the exams of the module. The residential block is planned at the beginning of each term. Before the start of each residential block students will receive detailed information about the programme.

Course outline

www.uhasselt.be/en
www.uhasselt.be/studyguide/

“This Master is specific to the transportation field of work. The residential blocks are excellently organised. The course administration team is very helpful, easily accessible and approachable. The course material is very good and helpful.”

Lee Quincey, UK
The 21st century started as the century of molecular life sciences. Ever since the 1990s when scientists greatly improved our insight into the molecular basis of life processes, the life sciences have developed at a tremendous rate. Various breakthroughs, including the mapping of the human genome, are leading to the rapid development of inter-relationships between formerly autonomous scientific disciplines such as genetics, medicine, pharmacology, biology, and environmental science. This creates new prospects for the academic and business worlds. Investments are huge: all over the world, universities, research institutes and businesses are launching new research initiatives, teaching programmes and business related activities. In accordance with its Lisbon Strategy, aimed at a more ambitious reinforcement of Europe’s knowledge based economy, the EU strongly supports further development of genomics and biotechnology. And these are only two of many future scientific developments in the realm of the life sciences, including proteomics, bioinformatics, bioelectronics and imaging, all of which have numerous applications for human health, wellness and prosperity. The Master of Biomedical Sciences focuses on state-of-the-art methodology, knowledge, insight and academic skills, enabling graduates to unravel the molecular mechanisms of health and disease as independent researchers. The programme provides students with the knowledge and skills required for the proper design of a scientific research project.

Students can choose between three specializations (offering courses in English): Clinical Molecular Sciences, Environmental Health Sciences, Bioelectronics and Nanotechnology.

Fast facts
Programme
Master of Biomedical Sciences
Specializations
Clinical Molecular Sciences, Environmental Health Sciences, Bioelectronics & Nanotechnology
Duration
2 years full-time
Start date
September
Learning method
Problem and project based
Assessment method
Oral and written exams, assessment of practical skills, scientific writing and presentations
The master years were very exciting because of the important challenges of linking theoretical lessons to related practical experiences. Our first experience with conferences and our participation in social and environmental debates broadened our scientific view and helped us to become critical, enthusiastic scientists.

An-Sofie Stevens and Sofie Thijs, Belgium

Clinical Molecular Sciences

Advantages of the Master of Biomedical Sciences: Clinical Molecular Sciences

This specialization places emphasis on the acquisition of knowledge, insight and practical skills with regard to the molecular basis of human disease. The central themes of the curriculum are molecular mechanisms of disease and molecular diagnostics and therapy in disease. This programme is jointly organised with Maastricht University. Both campuses offer expertise in a number of areas, giving students opportunities to participate in on-going research and receive hands-on, as well as practical experience. Students learn how to obtain new scientific knowledge in the field of molecular life sciences and how to apply this knowledge, e.g. for prevention, diagnosis and therapy. The master programme integrates teaching and training within the scope of cross-border molecular biomedical research and the opportunity for students to participate in this on-going research.

Clinical Molecular Sciences: the right choice for you?

The master programme targets:

- Bachelor graduates interested in life sciences and who have a strong motivation to pursue a career as a scientist in this field.
- Graduates who have completed an academic or higher education (bachelor or master) in the field of life sciences (including cell biology, molecular medicine, biomedical sciences, biochemistry, biotechnology and molecular biology) who want to extend their knowledge and skills to build a solid basis for a research career.

What are your career prospects?

- Fundamental and applied research at universities, hospitals, research centres
- Government authorities and centres focusing on public health, genetics, and public relations agencies
- Research and development in pharmaceutical and biotechnology industries
- PhD programmes in scientific and biomedical disciplines
- Education

Further information:

Website: www.uhasselt.be/biomedical-sciences
Programme coordinator: Prof. Dr Veerle Somers
Email: veerle.somers@uhasselt.be

Course outline

www.uhasselt.be/en
www.uhasselt.be/studyguide/
Advantages of the Master of Biomedical Sciences: Environmental Health Sciences

The aim of the Environmental Health Sciences specialization is to achieve an understanding of the mechanisms of interaction between humans and their environment. The central theme of this curriculum is therefore to study the complex interactions between the genetic make-up of individual and environmental factors that may have an impact on human health. This programme is offered at Hasselt University in collaboration with Maastricht University. Students learn how to obtain new scientific knowledge in the field of molecular life sciences and how to apply this knowledge, e.g. for prevention, diagnosis and therapy. The master programme integrates teaching and training within the scope of cross-border molecular biomedical research and the opportunity for students to participate in this ongoing research.

Environment & health: the right choice for you?

The master programme targets:

- Bachelor graduates interested in life sciences and who have a strong motivation to pursue a career as a scientist in this field.
- Graduates who have completed an academic or higher education (bachelor or master) in the field of life sciences (including cell biology, molecular medicine, biomedical sciences, biochemistry, biotechnology and molecular biology) who want to extend their knowledge and skills to build a solid basis for a research career.

What are your career prospects?

- Fundamental and applied research at universities, hospitals, research centres
- Government authorities and centres focusing on public health and environmental conservation
- Food safety agencies
- Research and development in companies specialised in pharmaceutics, diagnostics and environmental health science
- PhD programmes in scientific and biomedical disciplines
- Education

Further information

Website: www.uhasselt.be/biomedical-sciences
Programme coordinator: Prof. Dr Jan Colpaert
E-mail: jan.colpaert@uhasselt.be

Course outline

www.uhasselt.be/en
www.uhasselt.be/studyguide/
Bioelectronics and Nanotechnology

Advantages of the Master of Biomedical Sciences: Bioelectronics and Nanotechnology

The central themes of this programme are: biomaterials, the interface between biological and electronic systems (for example between neurons and integrated circuits) and the broad domain of biosensors. Nanotechnology is concerned with creating these structures on the scale of individual biomolecules.

Bioelectronics & Nanotechnology: the right choice for you?

The master programme targets:

• Bachelor graduates interested in life sciences and who have a strong motivation to pursue a career as a scientist in this field.
• Graduates who have completed an academic or higher education (bachelor’s or master’s) in the field of life sciences (including cell biology, molecular medicine, biomedical sciences, biochemistry, biotechnology and molecular biology) who want to extend their knowledge and skills to build a solid basis for a research career.

What are your career prospects?

• Applied and fundamental research at universities, hospitals and research centres
• Government authorities and centres focusing on public health, environmental conservation, genetics, and information services
• Research and development in companies specialised in pharmaceutics, diagnostics, biotechnology, and medical engineering
• PhD programs in scientific and biomedical disciplines
• Education

“First of all: the field of research is absolutely interesting and seminal. You can participate in research projects and it is possible to continue after the master programme with a PhD at Hasselt University.”

Fabian Wilbers, Germany

Further information

Website: www.uhasselt.be/bioelectronics-master
Programme coordinator: Prof. Dr Patrick Wagner
E-mail: patrick.wagner@uhasselt.be

Course outline

www.uhasselt.be/en
www.uhasselt.be/studyguide/
Hasselt University applies the same policy to its international students as to its Belgian students, though there are some additional requirements. Hasselt University will assess students individually on the basis of their previous academic record and qualifications. General requirements imply diploma requirements and language requirements. Specific admission requirements were mentioned in the programme overview (supra).

Diploma requirements
Students should hold at least a university diploma or degree certificate or a diploma of higher education equivalent to a bachelor degree (180 ECTS credit points). The Examination Board of the programme evaluates each application individually with regard to the applicant’s academic record. Depending on previous qualifications, you may have to complete a preparatory programme during the first term of the first master year. This can be combined with the master programme.

Language requirements
Candidates who wish to register in an English language master’s programme have to demonstrate good command of English, both written and spoken. English language skills need to be confirmed by a recent score on the Test of English as Foreign Language (TOEFL) or the International English Language Testing System (IELTS) or any recognised proficiency test.

- a TOEFL score report (paper-based: score 550 or more, computer-based: score 213 or more, internet-based: score 79-80).
- IELTS certificate (overall band score 6.0).

The English Language Test can be waived on the basis of an interview or if English language proficiency is proven otherwise (e.g. if education or part of it was in English or if English is a national language in your home country).
How to enrol?
Online pre-registration is compulsory. The Examination Board will only consider duly completed application files. The application file consists of the following items:

1. Duly completed application form:
   [www.uhasselt.be/applicationForm](http://www.uhasselt.be/applicationForm).
2. A photocopy of the obtained diplomas or degree certificates in the original language.
3. A recent passport photograph.
4. Translation of university diploma(s) in English by an official translator.

<table>
<thead>
<tr>
<th>EEA-students</th>
<th>Non-EEA-students</th>
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<tbody>
<tr>
<td>15th of September</td>
<td>1st of February for Master of Statistics</td>
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<td></td>
<td>1st of May</td>
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Applicants who are admitted to the programme, will first receive a confirmation of admission to Hasselt University by e-mail, together with e-mail requests for payment of tuition fee and if necessary of health insurance fee. An admission package will be sent by post to the address given in the online application (NO electronic copy of the admission letter is sent). After receipt of payment of the tuition fee (and insurance fee) candidates will receive confirmation of receipt of payment by e-mail. Before the start of the academic year (typically beginning of September) further information about the orientation programme will be sent by e-mail to all candidates.

5. Certified translated transcripts of the original records for all programmes completed at university level. The university of origin should provide the transcript of records and a statement in English which explains how the assessment marks assigned are to be converted into the standardised US-system or EU-standard ECTS-system. The translation of the transcript of records in English must be done by an official translator.

6. English-language skills need to be confirmed (see language requirements).
FINANCIAL ASPECTS

<table>
<thead>
<tr>
<th>Programme</th>
<th>Tuition fee</th>
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<tbody>
<tr>
<td>Master of Science in Management</td>
<td>€ 610.60</td>
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<tr>
<td>Master of Science in Transportation Sciences</td>
<td>€ 610.60</td>
</tr>
<tr>
<td>Master of Science in Statistics</td>
<td>€ 1835</td>
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<tr>
<td>Master of Science in Biomedical Sciences</td>
<td>€ 1835</td>
</tr>
</tbody>
</table>

For non-EEA-students different tuition fees may apply. Please visit our website for more information.

Reduced registration fees are possible for students from some developing countries within the framework of a co-operation between universities or other institutions.

Special registration category (fixed fee PhD or doctorate): € 290.20 in the first year of registration and in the year of defence, no fee for in-between years.

**Health insurance**
Covering the full period of stay in Belgium, starting on the day of arrival, health insurance is compulsory for all non-EEA-students. The premium amounts to € 30/month or € 360 for 12 months.

The premium for health insurance must be paid together with the tuition fee.

**Payment**
Applicants, who are admitted to the programme by the Examination Board, will be asked to confirm their application and to pay the tuition fee. Registration of international students is only possible after payment of the tuition fee, augmented with the premium for health insurance (only for non-EEA-students). Payment in cash or by credit card is not possible. The registration is suspended until the student has paid all outstanding registration fees.

**Living expenses**
Living standards are quite high in Belgium. Therefore all international students and guests of Hasselt University are advised to make sure that they have the financial means for a stay in Belgium, before they leave their home country.

Please note that the amounts may change yearly and may vary according to your personal needs. If your partner or family members will come along to Hasselt, the extra costs need to be calculated as well.

**Cost Type** | **Costs in EURO (€)**
--- | ---
Accommodation | On average € 265/month
(Total cost may vary due to utilities costs (water, electricity, internet, etc.) not always included in the rent)
Tuition fee | See table above
Health insurance (compulsory for non-EEA-students) | € 30/month
Course materials | On average € 650
Warm meal in the student restaurant at the campus | On average between € 3.65 and € 5.50/meal

More information on: www.uhasselt.be/en
For pre-registration: www.uhasselt.be/applicationForm
RESEARCH & INNOVATION
To take a leading role in scientific research, Hasselt University focuses on a well selected set of research areas. This so-called spearhead approach, in combination with a good network strategy, puts Hasselt University on the international scientific map.

**Spearhead approach**  
The spearhead policy implies that large parts of the financial resources for research are used in a limited number of target areas. These research activities are embedded in the research institutes: they carry out high-quality interdisciplinary research and meet international standards. The complete research spectrum is covered: from fundamental over strategic basic research to applications and valorization.

**Network strategy**  
The quality of research at Hasselt University also benefits from the extensive research network that the university has developed. Research innovation is based on an open and international dialogue with other key scientific players. International collaboration is essential for the quality of the research output and contributes to the optimization of the research process. Hasselt University is a partner in a variety of Flemish, Belgian, European and non-European research projects.

**Young researchers**  
Through doctoral research, young national and international researchers get the opportunity to broaden their scientific horizon. A crucial task of the university is the scientific training of young researchers. Hasselt University offers PhD training to the doctoral students. This way they develop not only a number of research skills, but also skills that are valuable outside the research domain (presentation and networking skills, courses on intellectual property, business development, time management,...).

As mentioned above our research on well-chosen spearhead fields is organised in seven research institutes. A short introduction to these institutes is given on next pages.
Biomedical Research Institute (BIOMED)
BIOMED is a multidisciplinary institute where fundamental and applied scientific research is conducted in the domain of (biomedical) life sciences. The institute focuses on neurological mechanisms and neuroinflammation, (auto)immunity and cardiological processes. These domains are supported by research programmes in bioimaging, biomarkers and rehabilitation. 
Website: www.uhasselt.be/BIOMED-en

“At BIOMED we can work with outstanding professors and friendly international colleagues. Student life is harmonious and takes place in a pleasant environment. I appreciate the nice accommodation and free public transport from the city to the campus!”
NGUYEN HUNG ANH, VIETNAM

Centre for Statistics (CenStat)
CenStat encompasses research, education and consultancy in mathematical statistics, biostatistics, statistical bioinformatics, epidemiology and public health methodology. Research topics include longitudinal data analysis, clustered/hierarchical data, multivariate methods, missing data, censored data, clinical trials, surrogate endpoints, models for infectious diseases, methods for genomics and proteomics, etc.
Besides research and education, CenStat also offers statistical advice and support, either short or long term, to other academic research groups, industry, and governmental organizations.
CenStat is the UHasselt division of I-BioStat (Interuniversity Institute for Biostatistics and statistical Bioinformatics). 
Website: www.censtat.uhasselt.be
Institute for Materials Research (IMO)
Institute for Materials Research in Microelectronics (IMOMEC)
IMO/IMOMEC is a high-tech research centre which is active in the fields of materials for electronics and nanotechnology. Since 2001, IMO is an associated laboratory of IMEC. Currently, both fundamental and applied research is focused on eight research themes: printable electronics, sustainable energy and materials, biosensing devices, diamond, smart biosurfaces, advanced organic materials, metaloxide nanomaterials, reliability of materials systems and biosensors.
Website: www.imo.uhasselt.be

Expertise Centre for Digital Media (EDM)
EDM has been performing fundamental and applied research in information and communication technology (ICT) since 1987. Our research focuses on two core competences: ‘Visual Computing’ and ‘Human-Computer Interaction’. EDM’s key objective is to be a leading research institute in human-computer interaction, video-based graphics, multimedia, computer graphics and virtual environments.
Website: www.edm.uhasselt.be

Centre for Environmental Sciences (CMK)
In this institute biologists, medical experts, chemists, economists and jurists join forces to develop an interdisciplinary scientific approach to study environmental problems and to counsel governmental organizations and industries in environment-related problems. One of the core competences is the study of physiological, biochemical and molecular aspects of environmental toxicity responses in organisms. Also clean technologies are a scientific core business for CMK. Moreover, CMK is establishing, together with colleagues from UAntwerp and Regionaal Landschap Kempen en Maasland, a Field Research Centre situated in the ‘Hoge Kempen’ National Park. The main objectives of the Field Research Centre are threefold: (1) enable high quality international research to benefit and increase the knowledge of “biodiversity” and effects of a changing climate; (2) enable and facilitate exchange of expertise and experience regarding biodiversity, nature conservation and management; (3) provide and offer modules for student excursions and training for higher education in several disciplines. A general focus will also be on raising awareness and education not only for science students/researchers but also for the general public.
Website: www.cmk.uhasselt.be/english
Transportation Research Institute (IMOB)
The Transportation Research Institute is an independent scientific research institute, associated with Hasselt University. Its mission is to develop sustainable solutions for issues in the fields of transportation behaviour and traffic safety. To analyse and predict transportation behaviour IMOB uses activity-based transportation models. Traffic safety research focuses on strategic analysis and risk and evaluation studies. The institute tries to achieve its mission at national and international level by performing fundamental and applied research and by providing training with regard to traffic and transportation.
Website: www.imob.uhasselt.be

Research Centre for Entrepreneurship and Innovation (KIZOK)
KIZOK performs fundamental and policy-oriented research in the field of entrepreneurship and innovation with a focus on SMEs and family businesses. Research in KIZOK is structured around two thematic clusters: corporate governance (board of directors, top management teams, reporting) and organizational change & learning (organizational and inter-organizational systemic learning, open and business model innovation & corporate entrepreneurship, regional economics and innovation).
Website: www.uhasselt.be/kizok
Hasselt University annually welcomes close to 400 PhD students. PhD research is conducted in a wide variety of research groups in the faculty of Business Economics, Law, Medicine and Life Sciences, Sciences, Architecture and Arts and Engineering Technology. It leads to one of the doctor degrees below.

- Doctor of Applied Economic Sciences
- Doctor of Science: Mathematics
- Doctor of Science: Physics
- Doctor of Science: Chemistry
- Doctor of Science: Information Sciences
- Doctor of Science: Statistics
- Doctor of Science
- Doctor of Medical Sciences
- Doctor of Biomedical Sciences
- Doctor of Rehabilitation Sciences
- Doctor of Physiotherapy
- Doctor of Transportation Sciences
- Doctor of Law
- Doctor of Architecture
- Doctor of Interior Architecture
- Doctor of Audiovisual and Visual Art
- Doctor of Industrial Sciences

More information about...

... UHasselt PhD procedure and funding: www.uhasselt.be/PhD
... UHasselt Doctoral Schools: www.uhasselt.be/doctoralschools
... UHasselt PhD vacancies: www.uhasselt.be/vacancies

PhD@UHasselt

Annual PhD information event in November
Let us know if you are interested at PhD@uhasselt.be, and you will receive an invitation.

Check out the PhD brochure at www.uhasselt.be/PhD or order your hard copy via PhD@UHasselt.be

More information on:
www.uhasselt.be/research
MAKING RESEARCH WORK

Innovation is the only way forward for companies to stay competitive in a global environment. Hasselt University is committed to its role as a catalyst in the innovation process. Within the university, a dedicated cell for technology transfer has been founded to link the academic world and the industry.

Entrepreneurship and spin-offs

Becoming an entrepreneur is not an obvious career switch for an academic researcher. Doctoral Schools are established to develop research skills and prepare young researchers for entrepreneurship.

Researchers who want to start a spin-off based on their research can be given advice as regards the development of a business concept, the recruitment of commercial partners and the drawing up of a financial plan.

The Industrial Research Fund (IOF) of Hasselt University focuses on the creation of these spin-offs. Projects with a high spin-off potential can count on extra financial support.

Cooperation with industry

In a world of innovation, valorization of research is essential. When technology can be transformed into an industrial application, Hasselt University can organise tailor-made introductions with potential industrial partners. As a researcher you can count on advice and guidance in relation to collaborations with the industry.

Patents

When research evolves into a new idea with high market potential, the university will look into ways to protect the invention and can assist the researcher with patent applications. IP sessions are organised to raise researchers’ awareness of the importance and pitfalls of filing patents. Hasselt University manages the patent portfolio of new discoveries and uncovers market opportunities.

Networking

Hasselt University has an extended regional and international network of potential industrial partners and key-players in the innovation network. This supports and promotes the output of the Limburg research expertise and facilitates the options for joint-research and business cooperation.

Technology transfer activities are integrated in the university’s core missions of education and research. Through a successful interaction with the academic community and a profound understanding of the needs of the industry, Hasselt University can make research work.

More information on:
www.uhasselt.be/techtransfer_en
De Forest Steward Council (FSC). Deze organisatie promoot en waarborgt een verantwoord bosbeheer dat economisch leefbaar, milieuvriendelijk en sociaal rechtvaardig is.