Master of Biomedical Sciences: Environmental Health Sciences

HASSELT UNIVERSITY:

IS LOCATED IN THE HEART OF THE EU-REGION NEAR BRUSSELS, AACHEN (GERMANY) & MAASTRICHT (THE NETHERLANDS)

IS THE 15th BEST SMALL UNIVERSITY IN THE WORLD

HAS 13% INTERNATIONAL STUDENTS FROM 75 DIFFERENT COUNTRIES

HAS 550 PHD STUDENTS, OF WHICH 36% INTERNATIONAL STUDENTS
This unique master degree programme focuses on the novel and interdisciplinary scientific domain of toxicology, molecular biology and epidemiology. Central themes are the complex interactions between individual genetics and exogenous factors present in either food, environmental compartments or their lifestyle that may have an impact on the environment and health.

The specialization Environmental Health Sciences is organized in collaboration with the Faculty of Sciences, which has a strong tradition of interdisciplinary and collaborative research.

The objective of this training program is to educate a new generation of environmental scientists who can use the tools of cell biology, molecular biology and biochemistry to study interactions between humans and their environment. Topics that are addressed include system biology/toxicology, biomarker development, gene-environment interactions and environmental policy. Students gain skills and knowledge that are applicable in a multitude of organizations including academia, national or local government, health services, commercial companies and private consultancies.
STRENGTHS OF THE PROGRAMME @UHASEL

• The programme focuses on interdisciplinarity to solve complex problems
• The programme contributes to the improvement of significant societal problems
• The programme is strongly research-oriented with focus on fundamental research and dissemination of scientific findings
• You are trained in several specialized research domains with focus on scientific English
• The programme offers two internships for a total of 60 ECTS credits
• Topics for internships are available at top-level research groups at Hasselt University, Maastricht University or at other locations in Belgium and abroad (within ERASMUS programme together with universities in e.g. Italy, Finland, Spain and England)
• You are trained in writing a grant proposal as a preparation of the senior internship
• The programme strongly emphasizes lifelong learning and employability skills such as communication (writing and presenting), critical attitude, working in team
• The programme is based on student-centered education: small groups, individual guidance and feedback, ‘face-to-face’ education
• You have the opportunity to present your research findings in an international conference environment
• The programme has an international and multidisciplinary orientation

CAREER PROSPECTS

• Fundamental and applied research at universities, hospitals, research centers (PhD, research associate...)
• Governmental authorities and centers focusing on public health, environmental conservation and food safety (project manager, business developer, investment manager...)
• Research and development in companies specialized in pharmaceutics, diagnostics and environmental health science (scientist, process analyst, patent agent...)
• Independent consultant and entrepreneur
• Education (teaching assistant...
**STUDY PROGRAMME**

**PROGRAMME**
International master programme  
Master of Biomedical Sciences

**SPECIALIZATION**
Environmental Health Sciences

**DURATION**
2 years, full time study programme, 120 ECTS  
Teaching periods of 10 weeks (quartiles)

**EDUCATIONAL CONCEPT**
In this master programme there is a strong emphasis on competence-based learning in which the employability skills of Hasselt University are very important. The educational team has an international and multidisciplinary profile and consists of professors and senior scientists, complemented by experts in the field. In lectures, assignments and ‘guided self-study’, recent publications in leading scientific journals are used. During the two internships, the student is individually supervised in experimental work, research skills and writing of a report.

### FIRST MASTER YEAR (60 ECTS)

**MASTER OF BIOMEDICAL SCIENCES**  
Environmental Health Sciences (EHS)

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<thead>
<tr>
<th>QUARTILE 1</th>
<th>QUARTILE 2</th>
<th>QUARTILE 3</th>
<th>QUARTILE 4</th>
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<tbody>
<tr>
<td>Experimental design in EHS (8 ECTS)</td>
<td>Laboratory animal sciences (6 ECTS)</td>
<td>Junior internship (15 ECTS)</td>
<td>Advanced data analysis (6 ECTS)</td>
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<td>System toxicology (8 ECTS)</td>
<td>Biomarker detection and quantification (4 ECTS)</td>
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<td>Drug delivery, pharmacology &amp; toxicity (3 ECTS)</td>
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<td>Exposure science (4 ECTS)</td>
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<td>Environmental policy (3 ECTS)</td>
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<td>Electives (6 ECTS)</td>
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### SECOND MASTER YEAR (60 ECTS)

**MASTER OF BIOMEDICAL SCIENCES**  
Environmental Health Sciences (EHS)

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<th>QUARTILE 1</th>
<th>QUARTILE 2 &amp; SEMESTER 2</th>
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<tr>
<td>Grant writing (10 ECTS)</td>
<td>Senior Internship &amp; Master Thesis (44 ECTS)</td>
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<td>Quality management (3 ECTS)</td>
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<td>Business management (3 ECTS)</td>
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[In common with all specializations]  
[In common with some specializations]  
[Master specific]
“We studied a wide range of scientific domains and associated techniques and looked critically at scientific publications. These two factors were of overriding importance in getting my current job as GLP auditor at Johnson & Johnson, Janssen Pharmaceutica NV. My responsibility is the evaluation and design of a whole range of pharmaceutical studies.”

Raf Vandeweyer – Johnson & Johnson, Beerse (Belgium)

“People are often exposed during a long time before a disease is spotted. Therefore it is important when designing a model of prevention, to get an insight of our exposure in our environment. The specialization of Environmental Health Sciences is a perfect way to increase knowledge in gene-environment interactions.”

Sharareh Hosseinzadeh – Master student of Toronto (Canada)

“I started in January a PhD at Leiden University, the aim is to do research on respiratory immunology. The Environmental Health Sciences master programme integrates teaching and training within the scope of cross-border molecular biomedical research and the opportunity to actually participate in ongoing research.”

Tinne Mertens – Leiden University (the Netherlands)
CONDITIONS OF ADMISSION

All applicants 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) in biomedical sciences, biology, or chemistry, at the start of the master programme (mid-September).

Applicants with a different educational background should contact the programme coordinator for specific regulations. The Examination Board of the programme evaluates each application individually concerning the applicant’s academic record. Sufficient knowledge of English is required and is to be confirmed by presenting a sufficient score on a language test (TOEFL or IELTS) and by an intake interview at request of the programme coordinator.

REGISTRATION

Online pre-registration is compulsory. The Examination Board will only consider duly completed application files.

Deadline for submission: 15th of August (EEA students) / 1st of May (non-EEA students)

For support in the admission procedure: admissionformaster@uhasselt.be

Applicants will be notified of the Examination Board’s decision as soon as possible. The registration becomes active after payment of the tuition fee, augmented with a premium for health insurance for non-EEA students.

Please consult www.uhasselt.be/admission for fees, regulations, and online pre-registration.

Specific info

www.uhasselt.be/environmental-health-sciences

Programme coordinators

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Let’s get connected

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More information

www.cmk.uhasselt.be