

MASTER OF SCIENCE IN ENVIRONMENTAL SANITATION

MAJORS: SOIL • WATER • AIR

120 ECTS CREDITS – LANGUAGE: ENGLISH – DEGREE: MASTER OF SCIENCE

COURSE CONTENT

The general objective of the study programme is the education of environmental specialists with ample knowledge of:

- the concepts and issues associated with environmental pollution;
- the detection and quantification of environmental pollution;
- the possible impact of environmental pollutants on the ecosystems and biota, together with the current techniques for risk assessment;
- the available technologies for prevention and remediation of environmental pollution and the way they are designed and applied in practice.

The programme has been set up with the explicit aim to offer training to an international audience, and is therefore entirely taught in English. Although the study programme can be attended by all students interested in environmental problems in an international context, the programme has always focussed on specific situations, cases and issues in developing countries, thus contributing to an improvement of the quality of life in these countries. This international dimension is an important asset, as the frequent contacts and common activities enhance the students' social skills.

The vast majority of students are non-European. They mainly originate from Asia, Africa and, to a lesser extent, from Latin America. Because of its international reputation, also students from OECD countries, Central and Eastern Europe occasionally register for the programme.

COURSE STRUCTURE

The study programme is structured around the following topics:

- basic study of non-polluted environments;
- sources and causes of environmental pollution;
- methodologies for detection and analysis of environmental pollution;
- environmental toxicology and risk assessment, both in the eco-toxicological and human toxicological field;
- prevention and sanitation of environmental pollution;
- clean technology;
- treatment of waste.

During the second year, the student has to choose a major ('soil', 'water' or 'air') to which the master's dissertation research (30 credits) has to be linked. Each major consists of 3 courses corresponding to 11 credits.

Both during the first and the second year, there is room for elective courses grouped in modules, totaling 6 credits. Only during the second year, one can opt for an internship (6 credits) as elective course.

> Master's dissertation

The dissertation subject is related to one of the majors of the study programme and preferably deals with an environmental issue at the country of origin. Therefore students can make their own proposal. This is possible due to the fact that in the framework of the current scholarship programme, students with a VLIR-UDC scholarship get the chance to return to their home countries during the summer holidays. During that period they have the opportunity to collect data and possibly also samples (e.g. dust on filters, water or soil samples; reducing the sample volumes by concentrating sample extracts is also possible) in the framework of their dissertation research. For those students who do not have the possibility to make their own proposal, each year potential dissertation promoters put forward dissertation subjects, which are announced by the CES&T in April. This allows the student to contact the professor in charge of the dissertation subject of his/her interest.

CAREER PERSPECTIVES

Graduates of 'Environmental Sanitation' are active in diverse sectors and assume highly varying professional duties. This can vary from appointments in ministries and governmental services, NGOs, teaching assignments at universities or scientific research in domains that deal with technologies for prevention and sanitation of environmental pollution.

In view of this situation, the study programme pays particular attention to the acquisition of knowledge and skills that enables graduates with a master's degree to fulfil their role as leading scientists able to cope with all kinds of situations. Therefore, 'Environmental Sanitation' puts strong emphasis on reflection and analytical abilities, intellectual creativity, communication skills and the development of a research approach and problem-solving capacity.

Students must be able to apply the acquired knowledge and understandings in complex problems or situations with the necessary guidance and steering, taking into consideration the ethical, financial and social aspects.

MASTER OF SCIENCE IN ENVIRONMENTAL SANITATION

120 ECTS CREDITS – LANGUAGE: ENGLISH – DEGREE: MASTER OF SCIENCE

TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

Rechtstreeks:

- Ba bio-ingenieurswetenschappen
- Ba chemie
- Ba biologie
- Ba geologie
- Ba biochemie en biotechnologie
- Ba fysica
- Ba geografie en geomatica
- Ba biomedische wetenschappen
- Ba ingenieurswetenschappen (alle)
- Ba farmaceutische wetenschappen
- Ba industriële wetenschappen (alle)
- Ba biowetenschappen
- Ba geneeskunde

Via voorbereidingsprogramma:

- Ba wiskunde
- Ba diergeneeskunde
- Ba milieu- en preventiemanagement

TAAL

Je voldoet aan de taalvoorwaarden op basis van je Vlaams diploma.

ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

Each application will be evaluated by a board of admission of the specific programme and has to be approved by the Faculty Council and by the Rector's office.

Entry conditions:

Applicants must have at least a Bachelor's degree in exact or applied sciences of min. 3 years with good overall scores (at least a second class upper or equivalent, preferably higher) from a university or recognised equivalent.

Specific academic requirements:

Applicants must be able to demonstrate through their transcripts adequate knowledge of mathematics, physics and chemistry at university level. This is an absolute requirement. Previous knowledge of (micro)biology and/or statistics and/or ecology is an advantage but not a prerequisite.

LANGUAGE

The applicant must be proficient in English.
More details on the requirements at www.itc.ugent.be.

PRAKTISCHE INFORMATIE

Studieprogramma:

<https://studiegids.ugent.be>

> faculteiten > opleidingstypes > ga naar de opleiding van je keuze

Alternatieve trajecten - doorstroomprogramma's

Ben je in het bezit van een masterdiploma waarvan het bachelorvoortraject bij de toelatingsvoorwaarden vermeld staat onder de categorie "via voorbereidingsprogramma", dan kan je eventueel – na toelating op basis van dossieronderzoek – onmiddellijk starten in de betreffende masteropleiding (horizontale instroom). Je volgt dan een geïndividualiseerd traject van minstens 120 sp. De trajectbegeleider is je contactpersoon.

Meer info: www.ugent.be/bw/start-een-master

Infomomenten

Masterbeurs

www.ugent.be/masterbeurs

PRACTICAL INFORMATION

Study programme

www.ugent.be/coursecatalogue

> by Faculty > Programme types > select your programme

Application deadline

Consult www.itc.ugent.be for programme specific application procedures and deadlines.

Enrolling institution

Ghent University

Tuition fee

Standard tuition fees apply - www.ugent.be/tuitionfee

More information about scholarship opportunities:

www.ugent.be/bw/en/international-training-centre/scholarship

More information at www.itc.ugent.be.

Trajectbegeleiding/Learning path counsellor

Mevr. Isabelle Vantornhout

studietraject.coupure.bw@ugent.be - www.ugent.be/bw

Contact

Ghent University - Faculty of Bioscience Engineering

International Training Centre

Coupure Links 653 - 9000 Gent

www.itc.ugent.be

itc@ugent.be

Last update: January 2017