

MASTER OF SCIENCE IN PHYSICAL LAND RESOURCES

MAIN SUBJECTS: SOIL SCIENCE - LAND AND GROUNDWATER MANAGEMENT • LAND RESOURCES ENGINEERING - URBAN LAND MANAGEMENT

Master's programme organised jointly by Ghent University (Faculty of Sciences) and Vrije Universiteit Brussel (VUB)

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

COURSE CONTENT

A country's physical land resources are a fundamental pillar of support for human life and welfare. Worldwide, population pressures and severe degradation, pollution and desertification problems are threatening this – for several countries relatively scarce – natural resource, and cause competition between agricultural or industrial purposes, urban planning and nature conservation. To guarantee a proper use and management of this basic commodity for a nation, well trained specialists with a thorough knowledge of the properties and characteristics of this natural resource, and a solid insight in factors and measures that may alter its actual state and value are warranted and call for a high standard scientific and practical education.

COURSE STRUCTURE

The Master of Science degree programme in Physical Land Resources is a two year, full time course. The first year provides a fundamental basis in physical land resources, including supporting methodological courses. The second year offers specialised courses in one of both main subjects: either Land and Groundwater Management or Urban Land Management. The main subject Land and Groundwater Management aims at training researchers, academics, government staff and expert consultants in the inventory and detailed characterization of land capacity, and of groundwater in particular. Graduates should be able to understand the development and evolution of groundwater under natural conditions or following human interference using field, map, laboratory and remote sensing data. They should have the scientific knowledge to use and manage land and water in a sustainable way, and to optimize land and groundwater use under different natural and environmental conditions.

The main subject Urban Land Management aims at training researchers, academics, government staff and expert consultants in the inventory and detailed characterization of land capacity, and of urban land in particular. Graduates should be able to understand urban hydrology and hydraulics, and the problem of sustainable mobility and logistics, using field, map, laboratory and remote sensing data. They should have the scientific knowledge to use and manage urban land and water in a sustainable way, and to optimize urban land use under different natural and environmental conditions.

The course curriculum of the first year, and of the main subject in Land and Groundwater Management of the second year is organised at Ghent University, whereas all courses of the main subject in Urban Land Management of the second year are lectured at "Vrije Universiteit Brussel". There is one common course in the second year: "Integrated Project", assuring coherence between both majors.

An important part of the programme is allocated to the master dissertation. This is part of the second year programme. Students have to integrate the acquired knowledge with (guided) self-study, which involves experimental work, data analysis and interpretation, writing and communication. The master dissertation is an important measure of the final competences obtained by the student.

CAREER PERSPECTIVES

There is a great demand for experts in physical land resources to address the many challenges ahead of us, particularly resulting from the lack of similar programmes worldwide. Implementation of various environmental and climate change related directives and addressing the sustainable development goals, demands well-trained personnel in physical land resources, both in the Global North and South. The great majority of alumni are very satisfied with the programme and with the opportunities it created for their current jobs. Most alumni are employed in theory-oriented and applied research at universities or research institutes; policy making at (inter)governmental and non-governmental organisations; education, training, extension or rural innovation; design, management and interventions at small to medium-sized enterprises or corporate businesses; or take up a consultancy or advisory position.

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TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

Rechtstreeks:

- Ba bio-ingenieurswetenschappen
- Ba chemie
- Ba biologie
- Ba geologie
- Ba geografie en geomatica
- Ba geografie
- Ba fysica
- Ba fysica en sterrenkunde
- Ba biochemie en biotechnologie
- Ba ingenieurswetenschappen (alle)
- Ba industriële wetenschappen
- Ba biowetenschappen
- Ba Environmental Technology (Incheon)
- Ba Food Technology (Incheon)
- Ba Molecular Biotechnology (Incheon)

TAAL

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

PRAKTISCHE INFORMATIE

Studieprogramma:

<https://studiegids.ugent.be>

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

Infomomenten

Masterbeurs - www.ugent.be/masterbeurs

Last update: January 2020.

Contact

Ghent University - Faculty of Sciences

Department of Geology

Campus Sterre, Krijgslaan 281 - S8, 9000 Gent

Prof.dr. Kristien Walraevens – kristien.walraevens@ugent.be

ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

Each application file is evaluated by an admission board and has to be approved by the Faculty Council and by the Rector's office, irrespective of the diploma obtained.

- Applicants must have a Bachelor's degree of minimum 3 years from a university or recognized equivalent. Good overall scores (at least a second class or equivalent, preferably higher) are recommended.
- Applicants are expected to have a basic science training in (1) mathematics or statistics and (2) chemistry or biochemistry, and an overall academic education background in a relevant discipline like (either) agriculture, biology, forestry, environment, land and water management, physical geography, geology or civil engineering verifiable through their transcripts.

Language requirements:

The applicant must be proficient in the language of the course or training programme, i.e. English. The English language proficiency can be met by providing a certificate (validity of 5 years) of one of the following tests: (TOEFL/IELTS predictive tests and TOEIC will not be accepted)

- TOEFL IBT 80
- TOEFL PBT 550
- ACADEMIC IELTS 6,5 overall score with a min. of 6 for writing
- CEFR B2 Issued by a European university language centre
- ESOL CAMBRIDGE English CAE (Advanced)

Language of instruction is not accepted anymore, except:

a. applicants who have a diploma (Secondary Education, Academic Bachelor Degree, Master Degree) issued by an institution officially recognized by the Flemish Government.

b. applicants who are nationals from or have obtained a bachelor and/or master degree in a higher education institute with English as mode of instruction in USA, Australia, New Zealand, United Kingdom, Republic of Ireland or Canada, and in the latter case a certificate that the mode of instruction was English has to be submitted.

PRACTICAL INFORMATION

Study programme

www.ugent.be/coursecatalogue

> by Faculty > Programme types > select your programme

Application deadline for international degree students

- For students who need a visa: 1st of March
- For students who do not need a visa: 1st of June

www.ugent.be/deadline

Enrolling institution

Students choosing the main subject Land and Groundwater Management enroll at Ghent University, students choosing the main subject Urban Land Management enroll at Vrije Universiteit Brussel (VUB)

Tuition fee

More information is to be found on:

www.ugent.be/tuitionfee