# INTERNATIONAL MASTER OF SCIENCE IN ENVIRONMENTAL TECHNOLOGY AND ENGINEERING

Erasmus Mundus Master's Programme jointly organised by UNESCO-IHE Institute for Water Education (Delft, The Netherlands), Ghent University (Gent, Belgium) and University of Chemistry and Technology (Prague, Czech Republic).

The master's programme is also supported by several associated partners from all over the world.

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

#### COURSE CONTENT

Growing awareness of the human impact on the environment has convinced most governments of the need to prevent air, water and soil pollution. Increasingly, remediation of contaminated sites is becoming a priority target. Consequently, there is a strong and ever increasing demand for specialists trained in pollution prevention and remediation.

This Joint Erasmus Mundus programme addresses these needs by educating a new generation of environmental scientist and engineers that can provide adequate and state-of-the-art environmental technology and engineering solutions to tackle complex, multidisciplinary environmental issues.

Successful graduates will have acquired a comprehensive knowledge of:

- the nature and severity of environmental pollution;
- the way polluted water, waste, gas, soils and sediments can he treated:
- the way ecosystems and the atmosphere can be protected from pollution;
- the way to prevent environmental pollution through resource management and application of re-use technologies.

They will be able to develop, design and apply technologies for the prevention and remediation of environmental pollution.

In addition, they should be capable of:

- searching scientific information;
- conducting scientific research in the field of environmental technology and engineering;
- reporting their findings by means of scientific reports and papers:
- communicating effectively in English and transferring knowledge to both the scientific and non-scientific world through oral presentations and media communications.

#### COURSE STRUCTURE

The overall programme structure is outlined below.

- Introductory courses: 25 credits (sem 1)
- Specialisation courses with focus on water treatment: 25 credits (sem 2)
- Elective project: 5 credits (sem 1 and sem 2)
- Transferable skills courses: 5 credits (sem 1 and sem 2)
- Advanced Environmental Technology and Engineering courses: 15 credits (sem 3), including 3 credit seminars
- Elective tracks with focus on soil or air treatment: 8 credits (sem 3)
- Elective internship or elective courses: 7 credits
- Elective language courses
- Master's dissertation: 30 credits (sem 4)

### > Master's dissertation

The master's dissertation is a requirement for every candidate to obtain a master's degree. The master's dissertation is an original piece of research work. It aims to develop and strengthen the research capacity skills of the students. The student selects a topic and is given guidance by a promoter or supervisor. The master's dissertation consists of a literature review part, a theoretical reflection and an original analysis of the topic.

## PROGRAMME MOBILITY

Over the study programme, students move between the partner institutions. Students start at University of Chemistry and Technology (Czech Republic). The second semester, they move to UNESCO-IHE in Delft (The Netherlands). The third semester, they study at Ghent University (Ghent, Belgium). The fourth semester is reserved for master's dissertation research, which is conducted at one of the partner institutes or with an associate partner.

# **CAREER PERSPECTIVES**

Trained graduates will be fully prepared to fulfil executive functions in international institutions (government, universities, non-governmental organisations, etc.) and private companies that deal with either application and development of pollution prevention, remediation and engineering techniques or regulatory decision making.

## Contact

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