

This proposed Master program is completely in line with many priorities of our modern society. The importance of water as a resource refers not only but also to engineering. Uncertainties of natural sciences combined to engineering and management must ensure ecosystems conservation and water humankind various needs. Engineering is concerned as the social importance of groundwater and surface water supplies not only requires but also uncertainty estimate of the answers.

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844 million people don't have clean water.

(WHO/UNICEF Joint Monitoring Programme (JMP) Report 2017)

The world has lost 70 per cent of its natural wetland extent, including a significant loss of freshwater species, over the last 100 years.

(United Nations, 2018)

Every \$1 invested in water and toilets returns an average of \$4 in increased productivity.

(WHO, 2012)

About 90% of all natural disasters are water-related. Over the period 1995–2015, floods accounted for 43% of all documented natural disasters, affecting 2.3 billion people, killing 157,000 and causing US\$662 billion in damage.

(UNISDR, 2015).

FACULTY OF ENGINEERING IN FOREIGN LANGUAGES

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TECHNICAL UNIVERSITY OF CIVIL ENGINEERING
BUCHAREST

MASTER PROGRAMME

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Bucharest



Aquatic Environment Engineering and Science



Technical University of Civil Engineering Bucharest
**Faculty of Engineering
in Foreign Languages**

The two-year Master's programme in **AQUATIC ENVIRONMENT ENGINEERING AND SCIENCE** will give you an in-depth understanding of modern water management techniques and water policies from a sustainable development perspective.

FACTS & FIGURES

TITLE: MSc

DEGREE IN: Civil Engineering

LANGUAGE : English

DURATION: 2 years

CREDITS: 120

START OF STUDIES: October

NO OF STUDENTS: 25

COMPETENCIES:

Ability to understand and apply knowledge based on fundamental and specialist disciplines in the field of water resources;

Ability to understand the principles of environmental policies in the field of water resources as well as the anthropic (urban or rural) impact on the natural, economic and social environment;

Capacity to solve water resource engineering problems such as resource evaluation, water supply estimation, water resource delineation and protection, implementation of modern water management solutions (natural based solutions, green solutions, etc.).

Spatial and temporal modeling using numerical techniques, spatial analysis (GIS) and remote sensing, using modern software packages.

COURSES

Hydrology and Geomorphology

Chemical / physical and biological processes for Water Resources

Applied Mathematics and Statistics in Water Resources

GIS for Water Resources

Risk and Vulnerability in water management

Water Resources Management and Legislation

Fluvial Hydraulics

Water abstraction

Coastal Engineering

Geology and Hydrogeology

Groundwater Modeling

Watershed Modelling

Remote Sensing in water engineering

Aquatic Ecosystems / Aquatic Ecology

Urban Water

Urban Hydrogeology

Groundwater Contamination and Remediation

Surface water quality and remediation

