



Class of 2012-2013

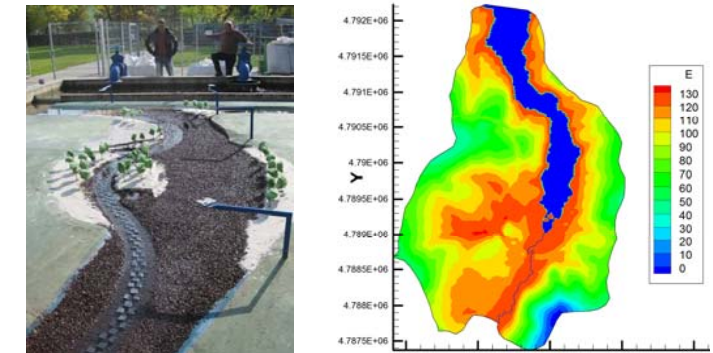
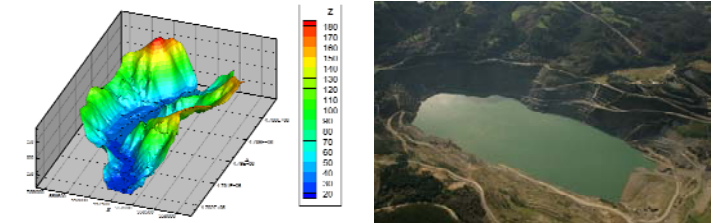
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# INTERNATIONAL MASTER IN WATER ENGINEERING

## Aims and scope

The broad experience achieved by the universities of A Coruña and Magdeburg in the training of civil engineering and water engineering professionals within the last decades, has culminated in the development of a Joint International Master Degree meeting the requirements of the European Space of Higher Education set by the Bologna Treaty.

At the moment there is an increasing need of qualified professionals in the field of Water and Environmental Engineering not only highly skilled in these fields of expertise but also owning the qualifications that allow them to develop their professional activity within an international environment.

The masters on water engineering being taught at the universities of A Coruña and Magdeburg have been merged since 2012 into a joint programme that also counts with the collaboration of some other prestigious international higher education institutions. The programme will be based into three semesters one of which will be imparted at each of the institutions and a third one to take place at the university of the student's choice (among A Coruña, Magdeburg and the partner universities), where the students will develop their Master Thesis and their internship or university practicum. This placement is considered a key point for this international master as an essential issue to allow for the inclusion of the master students into the job market.

**Degree to be obtained:** Master Degree in Water Engineering, verified by both the German and Spanish education authorities

**Access:** University degrees in engineering or applied sciences to be assessed by the academic commission by July/August/September of each year

**Beginning of the programme** 1<sup>st</sup> Oct

## Main Features

**Total length** of the master programme: 90 ECTS.

### First term (30c), A Coruña

Winter semester: October to February

Compulsory modules

HYDROLOGICAL PLANNING AND PROJECTS (6c)

WATER SUPPLY AND DRAINAGE SYSTEMS (6c)

PHYSICO-CHEMISTRY AND QUALITY OF WATER (6c)

Options (Choose 2 out of 4)

EXPERIMENTAL HYDRAULICS I (6c)

COMPUTATIONAL FLUID DYNAMICS I (6c)

WATER TREATMENT and ENERGY EFFICIENCY (6c)

GROUNDWATER ENGINEERING I (6c)

### Second term (30c), Magdeburg

Spring semester: March to July

Compulsory modules

HYDRAULIC PLANNING AND PROJECTS (6c)

GIS AND HYDROLOGY (6c)

RESTORATION ECOLOGY (6c)

Options (Choose 2 out of 4)

EXPERIMENTAL HYDRAULICS II (6c)

COMPUTATIONAL FLUID DYNAMICS II (6c)

RIVER MORPHOLOGY (6c)

WATER BIOTECHNOLOGY (6c)

### Third term (30c)

Winter semester: October to February

Location to be chosen between A Coruña, Magdeburg or partner universities

Enterprise training period or university practicum (15c)

Master Thesis (15c)

## Master Thesis and Internships

### Enterprise training period or university practicum

Internships will involve the development of professional practice/research in various fields related to Water Engineering within one of the companies/institutions/universities with which a partnership agreement has been signed, in Germany, Spain or other countries. A tutor will be appointed for every student at the host university to supervise the work being carried out. At the end of the internships the students will submit a report and the tutor will assess its adequacy. The duration of these placements will be between two and six months.

### Master Thesis

Students must write a final master thesis as a mandatory requirement for obtaining the Master Degree in Water Engineering. In order to do so, the coordinator of the host university will appoint a tutor being an expert on the subjects that students might choose as the object of their dissertations. The purpose of the dissertation is a research/practical work in any field related to Water Engineering. The dissertation can be developed at the Universities of A Coruña, Magdeburg or other universities with which they have bilateral agreements. Upon completion of the work, the tutor will receive a report which will be assessed by an examination board with three members, to be established at the host university.



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