Master in Civil engineering

The programme offers the following course(s):

› Urban Engineering (IU)
› Sustainable Construction and Environment (CDE)
› Construction, Risks and Mountains (CRM)
› Geomechanics, Civil Engineering and Risks (GCER)
› Hydraulic and Civil Engineering (HCE)

Presentation

The Master in Civil Engineering offers five programmes from M1 to M2:

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• Sustainable Construction and Environment (CDE)
• Construction, Risks and Mountains (CRM)
• Geomechanics, Civil Engineering and Risks (GCER)
• Hydraulic and Civil Engineering (HCE)
The three programmes IU, CDE and CRM consist of a foundation programme (over M1+M2 excluding internships) of 60 ECTS and specialised classes for each programme (30 ECTS). The classes are given in French. The M1 Applied Mechanics is entirely common to the two specialisations Civil Engineering and Mechanics and leads to three international programmes, including GCER.

The GCER and HCE programmes welcome international students. Teaching on the GCER programme is given entirely in English. For the HCE programme, 70% of classes are given in English.

### Objectives

#### Objectives common to all the programmes:
Scientific, technical, and professional skills in the field of civil engineering, especially in calculation and sizing of structures under static and dynamic loads, mechanics of geomaterials (soil, rock, concrete) and management of multidisciplinary projects.

#### Specific objectives of the programmes:

**IU programme:** this is a vocational course whose main objective is to train civil engineering managers in both the private and public sectors. It pays particular attention to issues related to urban planning and environmental management of construction. The IU programme particularly targets 'horizontal' construction and development (roads and utilities, transport, urban planning, etc.). There are many targeted employment opportunities at management level in all the phases of a construction operation.

**CDE programme:** this is a vocational course whose main objective is to train civil engineering managers in both the private and public sectors. It pays particular attention to issues related to the sustainability and renovation of structures, and the environmental aspects. There are many targeted employment opportunities at management level in all the phases of a construction operation.
CRM programme: this is a vocational course in the GC specialisation whose main objective is to train civil engineering managers in both the private and public sectors. It pays particular attention to issues related to construction in mountain environments from the perspective of the structures, and specific stresses that are not covered by normal norms. The CRM programme is especially aimed at companies specialising in construction in mountain areas and development of mountain environments in cross-border areas.

GCER programme: this is an international course primarily intended for students wishing to focus on research (PhD thesis) in the field of geomechanics and civil engineering in France or abroad, with a view to pursuing a career as teacher-researcher in a University, researcher in a large public organisation (CNRS, etc.) or R&D engineer within a company.

HCE programme: The HCE programme is an international vocational course whose main objective is to train engineers/managers in the field of water and environmental engineering, in both the private or public sector. In the HCE programme, special attention is paid to issues relating to the design of unique constructions and structures for which water flows are decisive factors. The employment opportunities at management level concern: studies, design, consulting and services in hydraulics, structures, geotechnology, offshore, natural risks; design of structures; maintenance, management and operation of hydraulic structures and networks.

Registration and scholarships
Public continuing education:
You are in charge of continuing education:
   if you resume your studies after 2 years of interruption of studies,
   or if you followed a formation under the regime formation continues one of the 2 preceding years
   or if you are an employee, job seeker, self-employed.
If you do not have the diploma required to integrate the training, you can undertake a validation of personal and professional achievements (VAPP).

Practicals informations :

> School : Grenoble INP, UFR PhiITEM (physique, ingénierie, terre, environnement, mécanique)
> Level : Baccalaureate +5
> Duration : 2 years
> Credits : 120
> Course type : Initial and Continuing Education
> Location(s) : Grenoble - University campus
> Contacts :

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