

# Master in Civil engineering

## The programme offers the following course(s) :

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- › 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

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The master in Civil engineering offers five programmes from master 1st year to master 2nd year :

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- Hydraulic and civil engineering (HCE)

<b>IU Programme</b> Urban Engineering	<b>CDE Programme</b> Sustainable Construction and Environment	<b>CRM Programme</b> Construction, Risks and Mountains	<b>GCER Programme</b> Geomechanics, Civil Engineering and Risks	<b>HCE Programme</b> Hydraulic and Environmental Engineering
<b>M1 GC</b>  Common part (51 ECTS) Specialized courses (9 ECTS) by programme			<b>M1 Applied Mechanics (International common with mechanical mention)</b>  Common part (45 ECTS) Specialized courses (15 ECTS)	Common part (45 ECTS) Specialized courses (15 ECTS)
<b>M2 GC</b>  Common part (9 ECTS) Specialized courses (21 ECTS) by programme  5 months training stage (30 ECTS)			<b>M2 GCER</b>  Common part (12 ECTS) Specialized courses (18 ECTS)  5 months training stage (30 ECTS)	Common part (12 ECTS) Specialized courses (18 ECTS)  5 months training stage (30 ECTS)

The three programs IU, CDE and CRM consist of a foundation program (over 2 years excluding internships) of 60 ECTS and specialised classes for each programme (30 ECTS). The classes are given in French.

The 1st year Applied mechanics is entirely common to the two specialisations Civil engineering and Mechanics and leads to three international programs, including GCER.

The GCER and HCE programs 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

**The objectives common to all the programs are :** 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.

**The specific objectives of the programs are :**

- **IU program :** 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 program 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 program :** 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** program : 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 program is especially aimed at companies specialising in construction in mountain areas and development of mountain environments in cross-border areas
- **GCER** program : 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** program : The HCE program 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 program, 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

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The first year of master's degree is accessible on file (and / or interview) to candidates with a national diploma conferring the degree of license in a field compatible with that of the master or via a validation of studies or acquired according to the conditions determined by the university or training. The second year is accessible on file (and / or interview) to candidates who have validated the 1st year of a compatible course or through a validation of studies or acquired under the conditions determined by the university or training.

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 \(VAPP\)](#)

You want to apply and sign up for a master ? Please be aware that the procedure differs depending on the diploma you want to take, the diploma you have already obtained and, for foreign students, your place of residence

Let us be your guide – simply follow this [link](#)

## Practicals informations :

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- > **School** : Grenoble INP, UFR PhITEM (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** :

### Programme director

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### Programme administration

Registrar's Office for the Master in Civil Engineering  
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Application  
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