

**At Louvain-la-Neuve - 120 credits - 2 years - Day schedule - In English**



## GCE2M - Teaching profile

### Learning outcomes

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Civil engineers are expected to design and construct basic infrastructure for our everyday lives while at the same time respecting and improving the environment.

This Master's degree programme aims to train experts in the field of civil and environmental engineering who will be able to take into account sustainable development, as well as the unique prototype scale of the projects and the complex natural world in which these projects take place.

The future civil engineer will acquire the necessary skills and knowledge to become:

- a professional engineer capable of integrating multiple fields of civil and environmental engineering
- a practical engineer who can use his/her knowledge for solving real-world problems and use appropriate civil engineering tools and techniques, either on construction sites or in design offices
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● LGCE2990

● LGCE2990

## PROFESSIONAL FOCUS [30.0]

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- Mandatory
- ✂ Optional
- △ Not offered in 2024-2025
- ◊ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
- 🚫🌐 Not open to incoming exchange students
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

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[Click on the course title to see detailed informations \(objectives, methods, evaluation...\)](#)

Year

1 2

### ○ Content:

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## MAJOR IN STRUCTURAL ENGINEERING

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- Mandatory
- ✘ Optional
- △ Not offered in 2024-2025
- ⊖ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
- 🌐 Not open to incoming exchange students
- (FR) Teaching language (FR, EN, ES, NL, DE, ...)

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[Click on the course title to see detailed informations \(objectives, methods, evaluation...\)](#)



## MAJOR IN HYDRAULIC ENGINEERING

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- Mandatory
  - ✘ Optional
  - △ Not offered in 2024-2025
  - Not offered in 2024-2025 but offered the following year
  - ⊕ Offered in 2024-2025 but not the following year
  - △ ⊕ Not offered in 2024-2025 or the following year
  - Activity with requisites
  - 🌐 Open to incoming exchange students
  - 🚫🌐 Not open to incoming exchange students
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**MAJOR IN ARCHITECTURE**

- Mandatory
- ⊗ Optional
- △ Not offered in 2024-2025
- ⊙ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
- 🚫🌐 Not open to incoming exchange students
- (FR) Teaching language (FR, EN, ES, NL, DE, ...)

Click on the course title to see detailed informations (objectives, methods, evaluation...)

*L'étudiant-e qui choisit de valider cette option doit sélectionner au minimum 15 crédits parmi les cours proposés.*

*Minimum 15 credit(s)*

Year

1 2

**o Content:**

|             |                                                                                    |                                                                  |                                                      | 1 | 2 |
|-------------|------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------|---|---|
| ⊗ LICAR2801 | <a href="#">Theory and research in the physical sciences: sustainable building</a> | Sergio Altomonte<br>Laura Marín Restrepo<br>Geoffrey Van Moeseke | (FR) [q1] [80h] [9 Credits] 🌐                        | X | X |
| ⊗ LICAR2902 | <a href="#">Project management and world of construction</a>                       | Nicolas Van Oost                                                 | (FR) [q1] [20h+20h] [4 Credits] 🌐                    | X | X |
| ⊗ LICAR2901 | <a href="#">Law on built and unbuilt areas</a>                                     | Christophe Thiebaut                                              | (FR) [q1] [30h] [3 Credits] 🌐                        | X | X |
| ⊗ LICAR2823 | <a href="#">Edification soutenable 3 : architecture climatique</a>                 | Sergio Altomonte<br>Laura Marín Restrepo                         | (FR) [q2] [22.5h] [3 Credits] ⊕ 🌐                    | X | X |
| ⊗ LICAR2831 | <a href="#">Architecture : rénovation, restauration</a>                            | Cécile Mairy                                                     | (FR) [q2] [22.5h] [3 Credits] ⊙ 🌐                    | X | X |
| ⊗ LLOC12006 | <a href="#">Parametric design</a>                                                  | André Stephan                                                    | (EN) [q2] [30h] [3 Credits] △ 🌐<br>> French-friendly | X | X |
| ⊗ LICAR2841 | <a href="#">Conception de l'architecture avec le bois</a>                          |                                                                  | (FR) [q2] [22.5h] [3 Credits] ⊙ 🌐                    | X | X |

## MAJOR IN SUSTAINABLE CONSTRUCTION

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- Mandatory
  - ✂ Optional
  - △ Not offered in 2024-2025
  - ⊖ Not offered in 2024-2025 but offered the following year
  - ⊕ Offered in 2024-2025 but not the following year
  - △ ⊕ Not offered in 2024-2025 or the following year
  - Activity with requisites
  - 🌐 Open to incoming exchange students
  - 🌐 Not open to incoming exchange students
  - [FR] Teaching language (FR, EN, ES, NL, DE, ...)
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## **MAJOR IN ENVIRONNEMENTAL ENGINEERING**

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● Mandatory

✘ Optional

△

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OPTIONS ET COURS AU CHOIX EN CONNAISSANCES SOCIO-ÉCONOMIQUES

**BUSINESS RISKS AND OPPORTUNITIES**

- Mandatory
- ⊗ Optional
- △ Not offered in 2024-2025
- ⊖ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
- 🚫 Not open to incoming exchange students
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

Click on the course title to see detailed informations (objectives, methods, evaluation...)

Year

1 2

○ **Content:**

|            |                                                   |                                    |                                                     |   |   |
|------------|---------------------------------------------------|------------------------------------|-----------------------------------------------------|---|---|
| ○ LEPL2211 | <a href="#">Business issues introduction</a>      | Benoît Gailly                      | EN [q2] [30h] [3 Credits] 🌐<br>> French-friendly    | X | X |
| ○ LEPL2212 | <a href="#">Financial performance indicators</a>  | Anne-Catherine Provost             | EN [q2] [30h+5h] [4 Credits] 🌐<br>> French-friendly | X | X |
| ○ LEPL2214 | <a href="#">Law, Regulation and Legal Context</a> | Vincent Cassiers<br>Werner Derycke | FR [q1] [30h+5h] [4 Credits] 🌐                      | X | X |

○ **One course between**

From 3 to 5 credit(s)

|             |                                                           |                                   |                                                  |   |   |
|-------------|-----------------------------------------------------------|-----------------------------------|--------------------------------------------------|---|---|
| ⊗ LEPL2210  | <a href="#">Ethics and ICT</a>                            | Axel Gosseries<br>Olivier Pereira | EN [q2] [30h] [3 Credits] 🌐<br>> French-friendly | X | X |
| ⊗ LLSMS2280 | <a href="#">Business Ethics and Compliance Management</a> | Carlos Desmet                     | EN [q1] [30h] [5 Credits] 🌐                      | X | X |

⊗ **Cours en marketing**

|             |                                             |                  |                                 |   |   |
|-------------|---------------------------------------------|------------------|---------------------------------|---|---|
| ⊗ MGEST1108 | <a href="#">Marketing</a>                   | Nadia Sinigaglia | FR [q2] [45h+20h] [6 Credits] 🌐 | X | X |
| ⊗ MLSMM2136 | <a href="#">Trends in Digital Marketing</a> | Ingrid Poncin    | FR [q2] [30h] [5 Credits] 🌐     |   | X |
| ⊗ MLSMM2134 | <a href="#">e-Consumer Behavior</a>         | Karine Charry    | FR [q2] [30h] [5 Credits] 🌐     |   | X |

⊗ **Cours en Sourcing and Procurement**

|             |                                                    |                                     |                             |   |   |
|-------------|----------------------------------------------------|-------------------------------------|-----------------------------|---|---|
| ⊗ LLSMS2036 | <a href="#">Supply Chain Procurement</a>           | Per Joakim Agrell<br>Antony Paulraj | EN [q1] [30h] [5 Credits] 🌐 | X | X |
| ⊗ LLSMS2038 | <a href="#">Procurement Organisation and Scope</a> | X                                   |                             |   |   |



**COURS AU CHOIX EN CONNAISSANCES SOCIO-ÉCONOMIQUES**

***GCE2M: Master [120] in Civil Engineering***

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⊗ LNEER2500



## Course prerequisites

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The **table** below lists the activities (course units, or CUs) for which there are one or more prerequisites within the programme, i.e. the programme CU for which the learning outcomes must be certified and the corresponding credits awarded by the jury before registering for that CU.

These activities are also identified **in the detailed programme**: their title is followed by a yellow square.

### Prerequisites and student's annual programme

As the prerequisite is for CU registration purposes only, there are no prerequisites within a programme year. Prerequisites are defined between CUs of different years and therefore influence the order in which the student will be able to register for the programme's CUs.

In addition, when the jury validates a student's individual programme at the beginning of the year, it ensures its coherence, meaning that it may:

- require the student to combine registration in two separate CUs which it considers necessary from a pedagogical point of view.
- transform a prerequisite into a corequisite if the student is in the final year of a degree course.

For more information, please consult the [Academic Regulations and Procedures](#).

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### # Prerequisites list

**LGCIV2012** "[Project 2: civil engineering structures](#)" has prerequisite(s) LGCIV2011

- LGCIV2011 - [Project 1](#)

## The programme's courses and learning outcomes

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For each UCLouvain training programme, a [reference framework of learning outcomes](#) specifies the skills expected of every graduate on completion of the programme. Course unit descriptions specify targeted learning outcomes, as well as the unit's contribution to reference framework of learning outcomes.

## GCE2M - Information

### Access Requirements

Master course admission requirements are defined by the French Community of Belgium Decree of 7 November 2013 defining the higher education landscape and the academic organisation of courses.

General and specific admission requirements for this programme must be satisfied at the time of enrolling at the university.

Unless explicitly mentioned, the bachelor's, master's and licentiate degrees listed in this table or on this page are to be understood as those issued by an institution of the French, Flemish or German-speaking Community, or by the Royal Military Academy.

**In the event of the divergence between the different linguistic versions of the present conditions, the French version shall prevail.**

#### SUMMARY

- > [General access requirements](#)
- > [Specific access requirements](#)
- > [University Bachelors](#)
- > [Non university Bachelors](#)
- > [Holders of a 2nd cycle University degree](#)
- > [Holders of a non-University 2nd cycle degree](#)
- > [Access based on validation of professional experience](#)
- > [Access based on application](#)
- > [Admission and Enrolment Procedures for general registration](#)

### Specific access requirements

This programme is taught in English with no prerequisite in French. A certificate is required for the holders of a non-Belgian degree, see selection criteria of the Acces on the file.

#### University Bachelors

| Diploma                                                             | Special Requirements                   | Access                          | Remarks                                                                                                                                                                                            |
|---------------------------------------------------------------------|----------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UCLouvain Bachelors</b>                                          |                                        |                                 |                                                                                                                                                                                                    |
| <a href="#">Bachelor in Engineering</a>                             |                                        | Direct access                   | Students who have neither major nor minor in the field of their civil engineering Master's degree may have an adapted master programme.                                                            |
| <b>Others Bachelors of the French speaking Community of Belgium</b> |                                        |                                 |                                                                                                                                                                                                    |
| Bachelor in engineering                                             |                                        | Direct access                   | Students with a Bachelor's degree in engineering sciences who have not taken the equivalent of a minor in the field of their civil engineering master degree may have an adapted master programme. |
| <b>Bachelors of the Dutch speaking Community of Belgium</b>         |                                        |                                 |                                                                                                                                                                                                    |
| Bachelor in engineering                                             |                                        | Access with additional training | Students who have no specialisation in the field of their civil engineering master degree may have an adapted master programme with up to 60 additional credits.                                   |
| <b>Foreign Bachelors</b>                                            |                                        |                                 |                                                                                                                                                                                                    |
| Bachelor in engineering                                             | Bachelor degree of Cluster Institution | Direct access                   | Students with a Bachelor's degree in engineering sciences who have not taken the equivalent of a minor in the field of their civil engineering master                                              |





To obtain a passing grade, the marks received for the teaching units are offset by their respective credits.

## Mobility and/or Internationalisation outlook

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Over the years, EPL has developed over a hundred partnerships with partners in more than 36 countries (EU and non-EU) to offer exchange programmes to its students. We also offer the possibility of obtaining Double degrees, Joint Degrees or Dual Masters in several fields. The EPL is currently participating in two Erasmus Mundus programmes: [FAME](#) and [STRAINS](#).

In addition to exchange programmes under the Erasmus+ programme, numerous agreements have been established with a wide range of universities through various partner networks such as:

- [TIME](#) network (Top Industrial Managers in Europe).
- [CLUSTER](#) network
- [Magalhães](#) network
- [Circle U.](#) network through several networks and European University Alliance

So, there's no shortage of opportunities to gain an additional qualification and/or spend part of the year abroad during your two-year Master's degree! It's the perfect opportunity to discover or improve your knowledge of a foreign language, tackle subjects from a new angle and gain unique experience in Europe or the rest of the world.

## Possible trainings at the end of the programme

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### Doctoral programmes

1. [GraSMech-Graduate School in Mechanics](#)
2. [ENVITAM-Sciences, Technologies and Environmental management](#)

### UCLouvain Master's degrees (about 60) are accessible to UCLouvain Master's degree holders

For example:

- Different Master's degree programmes in management (automatic admission based on written application).
- The [Master \[60\] in Information and Communication](#) at Louvain-la-Neuve or the [Master \[60\] in Information and Communication](#) at Mons

## Contacts

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### Curriculum Management

Entity

Structure entity

Denomination

Faculty

Sector

Acronym

Postal address

SST/EPL/GC

(GC)

Louvain School of Engineering (EPL)

Sciences and Technology (SST)

GC

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Academic supervisor: [Pierre Latteur](#)

Jury

- Président du Jury: [Claude Oestges](#)
- Secrétaire du Jury: [Pierre Latteur](#)

Useful Contact(s)

- Secrétariat: [Nathalie Sergoigne](#)

