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## Introduction

## Teaching profile

### Learning outcomes

The main objective of the "polytechnic" minors organized by the Faculté des Sciences Appliquées is for a student taking the engineering science baccalaureate, should s/he so wish, to acquire, via a major/minor polytechnic combination, basic training in two specialist areas of engineering science, and thus to broaden his/her range of technical skills, or to prepare for a master's in engineering science which spans the basic courses offered at baccalaureate level. The multidisciplinary objective of the minor in construction are to allow the student to acquire the majority of basic concepts in the discipline, in particular: Familiarizing him/herself with the theoretical bases of each discipline (construction, mechanical solids, hydraulics, soil mechanics), at the very least those which are vital to follow the master's course. Familiarizing him/herself with the basic tools (modélisation, IT, experimental techniques, etc). Mastering simple applications. The student must gain initial practical experience over the course of his/her baccalaureate studies through practical work and basic projects. Taking a critical approach to the most complex applications and methods which will be revisited on the master's course. Developing analytical, critical and communication skills.

**On successful completion of this programme, each student is able to :**

- Connaître les fondements théoriques de chaque discipline (construction, mécanique des solides, hydraulique, mécanique des sols), du moins ceux qui sont indispensables pour suivre les cours de master.
- Se familiariser avec les outils de base (modélisation, informatique, techniques expérimentales,...)
- Maîtriser parfaitement les applications simples de la construction.

### Detailed programme

#### PROGRAMME BY SUBJECT

● Mandatory

△ Courses not taught during 2015-2016

⊕ Periodic courses taught during 2015-2016

⊗ Optional

⊖ Periodic courses not taught during 2015-2016

■ Activity with requisites

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

Year

2 3

#### ○ Contenu de la mineure

Code	Titre	Enseignant(s)	Volume	Credits	Semestre	2015-2016	2016-2017
● LAUCE1031	<a href="#">STRUCTURAL MATERIALS</a>	Jean-François Cap, Denis Zastavni	30h+25h	5 Credits	2q	x	
● LAUCE1152	<a href="#">Hydraulic</a>	Sandra Soares Frazao	30h+30h	5 Credits	2q		x
● LAUCE1171	<a href="#">Geomaterials</a>	Pierre-Yves Bolly, Ramiro Daniel Verástegui Flores	30h+30h	5 Credits	2q	x	
● LAUCE1172	<a href="#">Soil mechanics</a> ■	Alain Holeyman, Ramiro Daniel Verástegui Flores	30h+30h	5 Credits	2q		x
● LAUCE1181	<a href="#">Mechanics of structures</a>	Pierre Latteur	30h+30h	5 Credits	1q		x
● LICAR1821	<a href="#">Edification soutenable 1 : construction et performances</a>	Marcelo Blasco Enbrie, Magali Bodart, Benoît Vandenbulcke	60h	5 Credits	1q		x

### COURSE PREREQUISITES

A document entitled [en-prerequis-2015-min-igce100i.pdf](#) specifies the activities (course units - CU) with one or more pre-requisite(s) within the study programme, that is the CU whose learning outcomes must have been certified and for which the credits must have been granted by the jury before the student is authorised to sign up for that activity.

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

As the prerequisites are a requirement of enrolment, there are none within a year of a course.

The prerequisites are defined for the CUs for different years and therefore influence the order in which the student can enrol in the programme's CUs.

In addition, when the panel validates a student's individual programme at the beginning of the year, it ensures the consistency of the individual programme:

- It can change a prerequisite into a corequisite within a single year (to allow studies to be continued with an adequate annual load);
- It can require the student to combine enrolment in two separate CUs it considers necessary for educational purposes.

For more information, please consult [regulation of studies and exams](#).

## **THE PROGRAMME'S COURSES AND LEARNING OUTCOMES**

For each UCL training programme, a [reference framework of learning outcomes](#) specifies the competences expected of every graduate on completion of the programme. You can see the contribution of each teaching unit to the programme's reference framework of learning outcomes in the document "In which teaching units are the competences and learning outcomes in the programme's reference framework developed and mastered by the student?"

The document is available by clicking [this link](#) after being authenticated with UCL account.

## Information

### Liste des bacheliers proposant cette mineure

> [Bachelor in Engineering](#) [en-prog-2015-fsa1ba]

### Admission

This polytechnic minor is essentially intended for students enrolled on the engineering science baccalaureate (civil engineering and architectural civil engineering). The minor is also accessible to students enrolled on the baccalaureates in mathematical, physical or geographical science. Minor activities must be taken in an order that respects the following requirements: - MECA1901 must come before MECA1100 - AUCE 1151 must come before AUCE1152 - AUCE1172 must come before AUCE1173 - AUCE1111 must come before AUCE1801

### Possible trainings at the end of the programme

For the minor in applied chemistry and physics: the master's in civil engineering in chemistry and material science and the master's in physicist-civil engineering. For the minor in construction: the master's in civil engineering in construction For the minor in electricity: the master's in electrician civil engineer For the minor in IT: the master's in IT civil engineer For the minor in mechanics: the master's in mechanic-civil engineer For the minor in applied mathematics: the master's in civil engineer in applied mathematics For a program which combines a major in electricity/minor in mechanics or major in mechanics/minor in electricity: the master's in electromechanical/civil engineering.

### Contacts

#### Curriculum Managment

Entite de la structure GCE

Acronyme	<b>GCE</b>
Dénomination	Civil and environmental engineering
Adresse	Place du Levant 1 bte L5.05.01 1348 Louvain-la-Neuve Tél 010 47 21 12 - Fax 010 47 21 79
Secteur	Secteur des sciences et technologies (SST)
Institut	Institute of Mechanics, Materials and Civil Engineering (iMMC)
Pôle	Civil and environmental engineering (GCE)

Academic Supervisor : [Sandra SOARES FRAZAO](#)

Jury:

#### Usefull Contacts

Secrétariat : [Viviane DELMARCELLE](#)

### Infos

