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## MINOFYKI - Introduction

### Introduction

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#### Introduction

The aim of this track is to enable the students to build a broad knowledge skills base in applied chemistry and physics (including thermodynamics and kinetics) opening avenues to the main fields of chemical and environmental engineering, advanced materials engineering, as well as physical engineering. The acquired skills cover a wide range of physical scales, from atomic to macroscopic and industrial dimensions, and prepare to the professions of the engineering master in chemistry and materials science as well as the master in physical engineering (chemical and environmental engineering, sustainable chemistry and energy, nanotechnology, (nano)electronics, optics, advanced materials including biomaterials, sensors and transducers, etc.).

## MINOFYKI - Teaching profile

### Learning outcomes

### Programme

#### DETAILED PROGRAMME BY SUBJECT

- 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...)

30 crédits

Year  
2 3

#### Content:

○ LMAPR1805	<a href="#">Introduction to materials science</a>	Jean-Christophe Charlier (coord.) Pascal Jacques Bernard Nysten	(FR) [q2] [30h+30h] [5 Credits] 🌐	X	
○ LMECA1901	<a href="#">Continuum mechanics.</a>	Philippe Chatelain Issam Doghri	(FR) [q2] [30h+30h] [5 Credits] 🌐	X	
○ LMAPR1491	<a href="#">Statistical &amp; quantum physics</a>	Jean-Christophe Charlier Xavier Gonze Luc Piraux Gian-Marco Rignanese	(FR) [q1] [30h+30h] [5 Credits] 🌐		X
○ LMAPR1230	<a href="#">Organic chemistry</a>	Sophie Demoustier Charles-André Fustin	(FR) [q1] [30h+30h] [5 Credits] 🌐		X
○ LMAPR1400	<a href="#">Kinetics and thermodynamics</a>	Juray De Wilde Denis Mignon	(FR) [q2] [30h+30h] [5 Credits] 🌐		X
○ LMAPR1492	<a href="#">Materials physics</a>	Jean-Christophe Charlier Xavier Gonze Luc Piraux Gian-Marco Rignanese	(FR) [q2] [37.5h+22.5h] [5 Credits] 🌐		X

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

For each UCLouvain training programme, a [reference framework of learning outcomes](#)

## MINOFYKI - Information

### Evaluation

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***The evaluation methods comply with the [regulations concerning studies and exams](#). More detailed explanation of the modalities specific to each learning unit are available on their description sheets under the heading "Learning outcomes evaluation method".***

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### Possible trainings at the end of the programme

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Polytechnic minors provide students who have performed well and acquired a bachelor's qualification in engineering science-civil engineering, as part of a program which includes one of these minors, with unconditional access without further training to the master's in civil engineering which corresponds to this minor.

- 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

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#### Curriculum Management

Entity

Structure entity

Denomination

Faculty

SST/EPL/FYKI

[\(FYKI\)](#)

Louvain School of Engineering

