UCL Study programme 2026 - 2027

Minor in Applied Chemistry and Physics

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MINOFYKI - Introduction

Introduction

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 swell 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 2026-2027
- Not offered in 2026-2027 but offered the following year
- Offered in 2026-2027 but not the following year
- Not offered in 2026-2027 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

Content:

				Year 2	Year 3
LFYKI1101	Applied Chemistry and Physics - Technological Aspects	Flavio Abreu Araujo Benoît Hackens Pascal Jacques Patricia Luis Alconero	FR [q2] [22.5h+30h] [5 Credits]	x	
LFYKI1102	Statistical physics and solid state physics I	Jean-Christophe Charlier Gian-Marco Rignanese	FR [q2] [30h+30h] [5 Credits]	x	
LFYKI1201	Materials science	Jean-Christophe Charlier Pascal Jacques	FR [q1] [30h+30h] [5 Credits]		x

Cours au choix

Les étudiants choisissent un cours parmi

LFYKI1202	Quantum physics and solid state physics II	Jean-Christophe Charlier Xavier Gonze Samuel Poncé	FR [q1] [37.5h+22.5h] [5 Credits]		x
LFYKI1203	Organic Chemistry for (Bio-)Materials	Sophie Demoustier Karine Glinel	FR [q1] [30h+30h] [5 Credits]		x

Cours au choix

Les étudiants choisissent un cours parmi

LFYKI1302	Nuclear physics and special relativity	Jean-Christophe Charlier Xavier Gonze	FR [q2] [30h+22.5h] [5 Credits]		x
LFYKI1303	Chemical Engineering : Thermodynamics and Kinetics	Juray De Wilde Denis Mignon	FR [q2] [30h+30h] [5 Credits]		x

THE PROGRAMME'S COURSES AND LEARNING OUTCOMES

For each UCLouvain training programme, a reference framework of learning outcomes specifies the 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.

MINOFYKI - Information

Evaluation

The evaluation methods comply with the Academic regulations and procedures . More detailed explanation of the modalities specific to each learning unit are available on their description sheets under the heading "Learning outcomes evaluation method".

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".

Possible trainings at the end of the programme

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

Curriculum Management

Entity

Structure entity	SST/EPL/FYKI
Denomination	(FYKI)
Faculty	Louvain School of Engineering (EPL)
Sector	Sciences and Technology (SST)
Acronym	FYKI
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