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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 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 2023-2024
- Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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	Introduction to materials science	Jean-Christophe Charlier (coord.) Pascal Jacques Bernard Nysten Thomas Pardoën	FR [q2] [30h+30h] [5 Credits] 🌐	X	
● LMECA1901	Continuum mechanics.	Philippe Chatelain Issam Doghri	FR [q2] [30h+30h] [5 Credits] 🌐	X	
● LMAPR1491	Statistical & quantum physics	Jean-Christophe Charlier Xavier Gonze Luc Piraux Gian-Marco Rignanese	FR [q1] [30h+30h] [5 Credits] 🌐		X
● LMAPR1230	Organic chemistry	Sophie Demoustier Charles-André Fustin	FR [q1] [30h+30h] [5 Credits] 🌐		X
● LMAPR1400	Kinetics and thermodynamics	Juray De Wilde Denis Mignon	FR [q2] [30h+30h] [5 Credits] 🌐		X
● LMAPR1492	Materials physics	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](#) 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 regulations concerning studies and exams (<https://uclouvain.be/fr/decouvrir/rgee.html>). 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

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

Denomination

Faculty

Sector

Acronym

Postal address

SST/EPL/FYKI

(FYKI)

Louvain School of Engineering (EPL)

Sciences and Technology (SST)

FYKI

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