



*UCL Study
programme
2024 - 2025*

Specialization track in applied Chemistry and Physics

FILFYKI - Introduction

Introduction

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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.).

FILFYKI - 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...)

				Year	
				2	3
o Content:					
○ LMAPR1805	Introduction to materials science	Jean-Christophe Charlier (coord.) Pascal Jacques Bernard Nysten	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.

FILFYKI - Information

Evaluation
