UCLouvain

UCL Study programme 2025 - 2026

Additionnal module in Physics

The version you're consulting is not definitive. This programme still may change. The final version will be published on 1th June.

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APPHYS - Introduction

Introduction

Introduction

The additional module in physics allows you to:

- deepen and broaden your knowledge and skills in different areas of physics;
- to study topics complementary to those addressed in the teaching units of the major in physics.

APPHYS - Teaching profile

Learning outcomes

The additional module in physics aims to deepen and broaden your knowledge and skills in different fields of physics and related disciplines, with a view to, among other things, facilitating your choice of purpose and / or options for your Master.

Programme

DETAILED PROGRAMME BY SUBJECT

- Mandatory
- Optional
- Not offered in 2025-2026
- Not offered in 2025-2026 but offered the following year
- Offered in 2025-2026 but not the following year
- Not offered in 2025-2026 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

The student chooses in the following list 30 credits that he.she distributes according to the following model: 10 credits during the second semester of the second annual unit, 10 or 15 credits during the first semester of the third annual unit, and 10 or 5 credits during the second semester of the third annual unit.

				Year	
				2	3

Content:

Specialized training in physics

LMECA1901	Continuum mechanics.	Philippe Chatelain Issam Doghri	EN [q2] [30h+30h] [5 Credits]		x
LPHYS1214	Astronomy and geophysics		FR [q2] [22.5h+15h] [5 Credits]	x	
LPHYS2114	Nonlinear dynamics		EN [q1] [22.5h+22.5h] [5 Credits] > *French-friendly*		x
LPHYS2143	Optics and lasers		EN [q1] [22.5h+22.5h] [5 Credits] > *French-friendly*		x
LPHYS2162	Introduction to the physics of the climate system and its modelling		EN [q1] [22.5h+22.5h] [5 Credits] > *French-friendly*		x
LPHYS1332	General Relativity		FR [q1] [30h+22.5h] [5 Credits] > *English-friendly*		x
LPHYS1351	Personal project in physics		FR [q1+q2] [0h+30h] [5 Credits] > *English-friendly*		x

Training in mathematics

LMAT1221	Mathematical analysis : integration		EN [q1] [30h+30h] [5 Credits] > *English-friendly*		x
LMAT1223	Differential equations		EN [q2] [30h+15h] [5 Credits] > *English-friendly*	x	x
LMAT1231	Multilinear algebra and group theory	Pierre-Emmanuel Caprace	EN [q1] [30h+30h] [5 Credits] > *English-friendly*		x
LMAT1241	Geometry II	Pierre Bieliavsky	FR [q2] [45h+30h] [6 Credits] > *English-friendly*	x	x
LPHYS2211	Group theory		EN [q2] [22.5h+22.5h] [5 Credits] > *French-friendly*		x

				Year 2	Year 3
Training in digital and instrumental techniques, data science and computer science					
LMAT1271	Calculation of probability and statistical analysis		FR [q2] [30h+30h] [6 Credits] > *English-friendly*	x	x
LEPL1106	Signals and systems	Julien Hendrickx Luc Vandendorpe	FR [q2] [30h+30h] [5 Credits]	x	x
LPHYS2103	Analog electronics [C]		EN [q1] [22.5h+22.5h] [5 Credits] > *French-friendly*	x	x
LPHYS2104	Data acquisition, digital electronics and microelectronics [C]		EN [q1] [22.5h+22.5h] [5 Credits] > *French-friendly*	x	x
Training in chemistry					
LCHM1141A	Organic chemistry		FR [q2] [30h+20h] [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.

APPHYS - Information

Access Requirements

The additional module in physics is accessible, from the second annual unit, to the only students enrolled in the Bachelor's programme in physics.

Evaluation

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

At the end of their Bachelor in physics, students have direct access to the Master [120] in physics and Master [60] in physics.

Contacts

Curriculum Management

Entity

Structure entity	SST/SC/PHYS
Denomination	(PHYS)
Faculty	Faculty of Science (SC)
Sector	Sciences and Technology (SST)
Acronym	PHYS
Postal address	Chemin du Cyclotron 2 - bte L7.01.04 1348 Louvain-la-Neuve Tel: +32 (0) 10 47 32 94 - Fax: +32 (0) 10 47 30 68
Website	https://uclouvain.be/fr/facultes/sc/phys

Academic supervisor: Vincent Lemaitre

Useful Contact(s)

- Study advisor: Clément Lauzin
- Administrative manager for the student's annual program: Nathalie Micha

Practical informations

Registration for an additional module

A registration for the 2nd annual unit via the web allows you to register for an additional module (the student who wishes to change his.her choice of additional module or minor must contact the secretariat of the faculty). The student may defer his.her registration to an additional module and proceed with this operation when he.she registers on line for the teaching units of his.her major.

When the student re-enrolls via the web the following year, he.she is automatically re-enrolled in the same additional module as the previous year. At this stage, any request for change is subject to the approval of the study advisor.

Registration for the teaching units of an additional module

The registration for the teaching units of an additional module is done at the same time as the registration to the teaching units of the major. The same goes for exam registration.

Timetable of courses and examinations

https://uclouvain.be/fr/facultes/sc/horaires-ti.html