UCL Study programme 2022 - 2023

Additionnal module in Physics

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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 2022-2023
- Not offered in 2022-2023 but offered the following year
- Offered in 2022-2023 but not the following year
- Not offered in 2022-2023 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	Véronique Dehant Patricia Lampens	FR [q2] [22.5h+15h] [5 Credits]	x	
LPHYS2114	Nonlinear dynamics	Michel Crucifix	EN [q1] [22.5h+22.5h] [5 Credits] > *French-friendly*		x
LPHYS2143	Optics and lasers	Clément Lauzin	EN [q1] [22.5h+22.5h] [5 Credits] > *French-friendly*		x
LPHYS2162	Introduction to the physics of the climate system and its modelling	Hugues Goosse Francesco Ragone	EN [q1] [22.5h+22.5h] [5 Credits] > *French-friendly*		x

Training in mathematics

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

Training in digital and instrumental techniques, data science and computer science

LMAT1271	Calculation of probability and statistical analysis	Rainer von Sachs	EN [q2] [30h+30h] [6 Credits] > *English-friendly*	x	x

				Year 2	3
⊠ LPHYS2101	Analog and digital electronics	Eduardo Cortina Gil	EN [q1] [45h+45h] [10 Credits] > *French-friendly*	x	x
⊠ LEPL1106	Signals and systems	Pierre-Yves Gousenbourger (compensates Luc Vandendorpe) Stéphanie Guérit (compensates Luc Vandendorpe) Julien Hendrickx	FR [q2] [30h+30h] [5 Credits]	x	x

⊠ Training in chemistry

⊠ LCHM1141A	Organic chemistry	Benjamin Elias (coord.) Charles-André Fustin	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 (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".

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)

- Clément Lauzin
- Nathalie Micha
- Catherine De Roy

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