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## Introduction

## Teaching profile

### Learning outcomes

The aim of the minor is to provide students whose core program (major) includes a substantial introduction to this field and who could envisage studying for a master's in physical science with additional training in physics.

### Detailed programme

#### PROGRAMME BY SUBJECT

- Mandatory  
 △ Courses not taught during 2015-2016  
 ⊕ Periodic courses taught during 2015-2016  
 ☒ Optional  
 ⊖ Periodic courses not taught during 2015-2016  
 ■ Activity with requisites

Click on the course title to see detailed informations (objectives, methods, evaluation...)

							Year	
							2	3
☒ LPHY1211	<a href="#">General Physics 3</a>	Jan Govaerts, Vincent Lemaître	30h+30h	4 Credits	1q	x		
☒ LPHY1221	<a href="#">Group theory</a>	Philippe Ruelle	22.5h +15h	5 Credits	2q	x		
☒ LPHY1222	<a href="#">Quantum Physics</a>	Fabio Maltoni	30h+30h	4 Credits	2q	x		
☒ LPHY1223	<a href="#">Special Relativity</a>	Jean-Marc Gérard	22.5h +15h	4 Credits	1q	x		
☒ LPHY1251	<a href="#">Statistical physics and Thermodynamics I</a>	Hugues Goosse, Christian Hagendorf	30h +22.5h	4 Credits	2q	x		
☒ LPHY1261	<a href="#">Astronomy and geophysics</a>	Véronique Dehant (coord.), Patricia Lampens	15h+7.5h	2 Credits	2q	x		
☒ LPHY1311	<a href="#">Classical electromagnetism</a>	Jan Govaerts	37.5h +15h	5 Credits	1q		x	
☒ LPHY1322	<a href="#">Quantum Physics 2</a>	Christophe Ringeval	45h +22.5h	6 Credits	1q		x	
☒ LPHY1331	<a href="#">Elementary nuclei and particules</a>	Vincent Lemaître	30h +22.5h	5 Credits	2q		x	
☒ LPHY1341	<a href="#">Atoms and molecules</a>	Clément Lauzin, Xavier Urbain	30h +22.5h	5 Credits	2q		x	
☒ LPHY1342	<a href="#">Etat solide</a>	Giacomo Bruno, Christophe Delaere	30h +22.5h	5 Credits	2q		x	
☒ LPHY1351	<a href="#">Statistical and thermodynamic physics 2</a>	Christian Hagendorf	30h+30h	5 Credits	2q		x	
☒ LPHY1352	<a href="#">Physics of fluids</a>	Eric Deleersnijder, Vincent Legat	45h +22.5h	5 Credits	1q		x	
☒ LPHY2371	<a href="#">Numerical Simulation in Physics</a>	Michel Crucifix, Bernard Piraux	22.5h +37.5h	5 Credits	1q		x	
☒ LPHY2372	<a href="#">Experimental methods</a>	Krzysztof Piotrkowski, Xavier Urbain	30h+15h	4 Credits	1q		x	

#### COURSE PREREQUISITES

A document entitled [en-prerequis-2015-min-lphys100i.pdf](#) specifies the activities (course units - CU) with one or more pre-requisite(s) within the study programme, that is the CU whose learning outcomes must have been certified and for which the credits must have been granted by the jury before the student is authorised to sign up for that activity.

These activities are identified in the study programme: their title is followed by a yellow square.

As the prerequisites are a requirement of enrolment, there are none within a year of a course.

The prerequisites are defined for the CUs for different years and therefore influence the order in which the student can enrol in the programme's CUs.

In addition, when the panel validates a student's individual programme at the beginning of the year, it ensures the consistency of the individual programme:

- It can change a prerequisite into a corequisite within a single year (to allow studies to be continued with an adequate annual load);
- It can require the student to combine enrolment in two separate CUs it considers necessary for educational purposes.

For more information, please consult [regulation of studies and exams](#).

## **THE PROGRAMME'S COURSES AND LEARNING OUTCOMES**

For each UCL training programme, a [reference framework of learning outcomes](#) specifies the competences expected of every graduate on completion of the programme. You can see the contribution of each teaching unit to the programme's reference framework of learning outcomes in the document "In which teaching units are the competences and learning outcomes in the programme's reference framework developed and mastered by the student?"

The document is available by clicking [this link](#) after being authenticated with UCL account.

## Information

### Liste des bacheliers proposant cette mineure

- > Bachelor in Engineering [en-prog-2015-fsa1ba]
- > Bachelor in Economics and Management [en-prog-2015-ecge1ba]
- > Bachelor in Mathematics [en-prog-2015-math1ba]
- > Bachelor in Geography : General [en-prog-2015-geog1ba]

### Admission

The minor in physics is intended for all students who hold baccalaureates in mathematical science, geographical science or engineering science. It is also open, on the advice of the conseiller aux études (course adviser), to students who have obtained sufficient training in basic mathematics and physics.

### Possible trainings at the end of the programme

MATH, FSA or GEOG bachelors who have taken this minor will be admitted on to the master's in physical science, possibly with a program adapted to suit their needs. The same rule applies to other students who have taken this minor, with possible restrictions depending on their course background. Nevertheless, any student who wishes to make this change to his/her study path is invited to make contact with the conseiller aux études (course adviser) from his/her own faculty as well as that of the department of physics.

### Contacts

### Curriculum Management

Entite de la structure PHYS

Acronyme	<b>PHYS</b>
Dénomination	Ecole de physique
Adresse	Chemin du Cyclotron 2 bte L7.01.04 1348 Louvain-la-Neuve Tél 010 47 32 94 - Fax 010 47 30 68
Site web	<a href="https://www.uclouvain.be/phys">https://www.uclouvain.be/phys</a>
Secteur	Secteur des sciences et technologies (SST)
Faculté	Faculté des sciences (SC)
Commission de programme	Ecole de physique (PHYS)

**Academic Supervisor :** [Eduardo Cortina Gil](#)

**Jury:**

### Usefull Contacts

Secrétaire de l'Ecole de physique : [Roseline Van Dyck](#)

### Infos

