




2.00 credits

19.0 h

Q2


This learning unit is not open to incoming exchange students!

Teacher(s)	Dias de Carvalho Junior Gabriel ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	<ul style="list-style-type: none"> • The course LSCI2320 taught in Q1 (S1 to S4) and the course LPHYS2471C taught in Q1 (S5 à S13) must have been taken. • The knowledge of the discipline(s) to be taught, i.e., the knowledge of physics related to the 3rd grades of secondary education in general science. • Clear and correct communication in the language of instruction both orally and in writing. • The interpersonal skills and professional postures normally expected of a teacher.
Main themes	<ol style="list-style-type: none"> 1. The didactic specificities of a teaching sequence in physics at the 3rd level (D3) 2. Experimentation, the scientific approach and the investigative approach in D3 3. Problematization and modeling in D3 4. The importance of epistemology; the major epistemological currents 5. Evaluation 6. Difficult concepts to teach in physics at D3
Learning outcomes	
Evaluation methods	<p>Students enrolled exclusively in the teaching unit LPHYS2471 D are evaluated as follows:</p> <p>Activity 1: Written test (February) on the fundamental concepts to be taught at D3 level in physics: 10% of the total grade</p> <p>Activity 2: Preparation and presentation of an activity for the Spring Science Fair: 10% of the total grade</p> <p>Activity 3: Individual or paired oral assessment (June) on the transfer of concepts in didactics and epistemology of physics (design and presentation of a physics learning sequence at D3 level and personal reflective work): 80% of the total grade</p> <p>Each of these three activities must be passed with a score equal to or greater than 10/20 for this UE to be considered successful. The absorbing mark principle is applied to this UE.</p> <p>Attendance in this course is mandatory. In accordance with Article 72 of the General Regulations for Studies and Examinations, the course coordinator may propose to the board to oppose the enrollment of a student who has not attended at least 80% of the classes, whether during the January, June, or September session.</p>
Teaching methods	The teaching activities are those recommended in secondary education: group work, lectures, flipped classrooms, practical work, laboratory sessions, etc. The didactic approach emphasizes co-construction with the students.
Content	This teaching unit aims to 'equip' students to become future physics teachers at D3 level. This involves not only presenting didactic elements related to physics education at D3 level but also ensuring the transfer and adoption of these tools by future teachers through course preparations.
Inline resources	<p>On MoodleUCL, acronym LPHYS2471.</p> <p>The site contains the documents presented and used during the courses and allows the deposit of the students' productions.</p>
Bibliography	<p>Des ouvrages en relation avec les disciplines enseignées et avec la didactique seront présentés lors des cours.</p> <p>-----</p> <p>Works and scientific publications related to the disciplines taught and to didactics will be presented during the courses.</p>
Other infos	<p>LPHYS2471 D is an optional course for students enrolled in the geography or mathematics aggregation. It can only be taken if courses LSCI2320 and LPHYS2471 C have been completed beforehand.</p> <p>LPHYS2471 D is offered in Q2, with a duration of 2 hours per week (22.5 hours equivalent to 2 credits).</p>
Faculty or entity in charge	CAFC

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Teacher Training Certificate (upper secondary education) - Mathematics	MATH2A	2		
Teacher Training Certificate (upper secondary education) - Geography	GEO2A	2		
Master [120] in Mathematics	MATH2M	2		
Master [120] in Geography : General	GEOG2M	2		