## UCLouvain

## Didactics and epistemology of chemistry

2.00 credits

2023

19.0 h

Q2

Teacher(s)	de Wergifosse Marc (coordinator) ;Wilmet Stéphanie ;				
Language :	French				
Place of the course	Louvain-la-Neuve				
Prerequisites	Didactics and Epistemology of Science Course : LSCI2320 Didactics and Epistemology of chemistry : LCHM2340 C				
Main themes	<ul> <li>The topics covered are those related to teaching chemistry in the third grade :</li> <li>Conceptual difficulties related to the topics to be taught in chemistry,</li> <li>The interest and exploitation of experimental or non-experimental activities, essential in chemistry,</li> <li>Practical sessions on the implementation of essential experiments in chemistry and analysis of learning difficulties.</li> </ul>				
Learning outcomes					
Evaluation methods	<ul> <li>Students enrolled only in LCHM2340 D are assessed as follows:</li> <li>Activity 1: Written test (February) on the basic concepts to be taught at D3 in chemistry: 10% of total grade</li> <li>Activity 2: Preparing and leading an activity for the science fair: 10% of total grade</li> <li>Activity 3: Individual or paired oral assessment (June) on the transfer of concepts in biology didactics and epistemology (design and presentation of a D3 chemistry learning sequence and a personal reflective assignment): 80% of total grade</li> <li>Each of these 3 activities must be passed with a mark equal to or higher than 10/20 for this UE to be passed. The absorbing mark principle is applied to this UE.</li> <li>Attendance is required. In accordance with article 72 of the General Regulations for Studies and Examinations, the course instructor may propose to the jury that a student who has not attended at least 80% of the courses in the January, June or September session be refused registration.</li> </ul>				
Teaching methods	Teaching activities are those recommended in secondary education: group work, lectures, flipped classes, practical work, laboratory sessions mainly co-constructed with students.				
Content	This teaching unit aims to "equip" students to become future chemistry teachers at the D3 level. The aim is not only to present didactic elements relating to the teaching of chemistry at the D3 level, but also to ensure the transfer and appropriation of these tools by future teachers through course preparation.				
Inline resources	on Moodle UCLouvain, acronym LCHM2340. The site contains documents presented and used during classes, and allows students to submit their own productions.				
Bibliography	Des ouvrages et publications scientifiques en relation avec les disciplines enseignées et avec la didactique seror présentés lors des cours.  Works and scientific publications related to the disciplines taught and to didactics will be presented during the courses				
Other infos	LCHM2340 D is an optional didactics course for students taking the agrégation in geography or mathematics. I can only be taken if LSCI2320 and LBIO2340 C have been taken beforehand. LCHM2340 D is given in Q2 for 2 hours a week (22.5 hours equivalent to 2 credits).				
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		٩	
Teacher Training Certificate (upper secondary education) - Geography	GEO2A	2		ø	
Master [120] in Mathematics	MATH2M	2		٩	
Master [120] in Geography : General	GEOG2M	2		٩	