UCLouvain

lbio2340c

Didactics and Epistemology of Biology - 2d degree

2.00 credits	18.5 h	Q1
--------------	--------	----



This learning unit is not open to incoming exchange students!

Teacher(s)	De Kesel Myriam ;			
Language :	French			
Place of the course	Louvain-la-Neuve			
Prerequisites	 LSCI2320 must have been taken in Q1 (S1 to S4). The knowledge of the discipline(s) to be taught, i.e., the knowledge of biology related to the 2nd grades of secondary education in general sciences. 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	1. Didactic specificities of a teaching sequence in biology at the 2nd level (D2) and the 3rd level (D3) 2. Experimentation, the scientific approach and the investigative approach in D2 and D3 3. Problematization and modeling in D2 and D3 4. The importance of epistemology; the major epistemological currents 5. Epistemological, critical, orienting, interdisciplinary and creative approaches 6. Assessment 7. Difficult concepts to teach in biology at D2 and D3			
Learning outcomes				
Evaluation methods	Students registered for the agrégation in geography or mathematics, in module LBIO2340 C only, are assessed in January as follows: Activity 1: Biology laboratory activities: 20% of total mark Activity 2: Written test (November) on basic concepts to be taught to D2 students in biology: 10% of total grade Activity 3: 10-hour observation internship report in biology: 30% of total grade Activity 4: Individual written assessment (January) on concepts covered in biology didactics and epistemology: 40% of total grade. Each of the 4 activities must be passed with a mark equal to or higher than 10/20 for this UE to be passed. The absorbent mark principle is applied to this course. 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 or September session be refused registration.			
Teaching methods	The teaching activities are those recommended in secondary education: group work, lectures, flipped classes, laboratories mainly in co-construction with the students.			
Content	This teaching unit consists in "equipping" students to become future biology teachers at D2. The aim is not only to present the elements of didactics related to the teaching of biology but also to ensure the transfer and appropriation of these tools by future teachers.			
Inline resources	on MoodleUCL, acronym LBIO2340. The site contains the documents presented and used during the courses and allows the deposit of the students' productions.			
Bibliography	Des ouvrages en relation avec les disciplines enseignées et avec la didactique seront présentés lors des cours.			
Other infos	LBIO2340 C is an elective course for students enrolled in the geography or mathematics associate degree programs. It can only be taken if LSCI2320 has been previously taken. LBIO2340 C is taken in Q1 during S8 to 14 for 2 hours per week (15 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		•	
Teacher Training Certificate (upper secondary education) - Geography	GEO2A	2		•	
Master [120] in Mathematics	MATH2M	2		٩	
Master [120] in Geography : General	GEOG2M	2		٩	