UCLouvain

## lbio2340d

2024

## Didactics and Epistemology of Biology - 3d degree

2.00 credits	19.0 h	Q2

Language :	French		
Place of the course	Louvain-la-Neuve		
Prerequisites	<ul> <li>LSCI2320 in Q1 (S1 to S4) and LBIO2340C in Q1 (S5 to S13) must have been taken</li> <li>The knowledge of the discipline(s) to be taught, i.e., the knowledge of biology related to the 3rd grades of secondary education in general sciences.</li> <li>Clear and correct communication in the language of instruction both orally and in writing.</li> <li>The interpersonal skills and professional postures normally expected of a teacher.</li> </ul>		
Main themes	1. Didactic specificities of a teaching sequence in biology 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. Epistemological, critical, orienting, interdisciplinary and creative approaches 6. Assessment 7. Difficult concepts to teach in biology at D3		
Learning outcomes			
Evaluation methods	Students enrolled in teaching unit LBIO2340 D only, are assessed as follows:  Activity 1: Written test (February) on the basic concepts to be taught in Biology D3: 20% of total grade  Activity 2: Design and animation of a Science Spring activity: 20% of total grade  Activity 3: Individual or paired oral assessment (June) on the transfer of concepts in biology didactics and epistemology (design and presentation of a D3 biology learning sequence and personal reflective work): 60% of total grade.  Each of the 3 activities must be passed with a mark equal to or higher than 10/20 for this UE to be passed. The abosrbante principle is applied to this UE.  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 enrolment.		
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 D3. 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 D is an elective didactics course for students enrolled in the Geography or Mathematics associate degree programs. It can only be taken if LSCI2320 and LBIO2340 C have been taken previously. LBIO2340 D is taken in Q2 for 2 hours per 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		٩	
Master [120] in Mathematics	MATH2M	2		٩	
Master [120] in Geography : General	GEOG2M	2		٩	