


4.00 credits

30.0 h + 30.0 h

Q2

Teacher(s)	Quinet Muriel ;Schtickzelle Nicolas ;
Language :	French
Place of the course	Louvain-la-Neuve
Learning outcomes	
Evaluation methods	The evaluation will be based on the mastery of theoretical concepts via a written exam and on the project report. The written exam (on computer in the campus computer room) will consist of multiple-choice questions and/or open questions and is worth 10/20 of the final grade mark. The mark for the experimental project is worth 10/20 of the final mark and is made up of the evaluation of the protocol and the oral presentation of the work carried out by the group (the team mark will be weighted according to the involvement of each member of the group).
Teaching methods	Theoretical lectures in the classroom and online, group work including fieldwork and laboratory experiments.
Content	<p>The course covers four main themes:</p> <ul style="list-style-type: none"> • What is science? • Asking scientific questions, formulating hypotheses and testing them • Sources and reliability of information • Sources of variation in data. <p>A series of theoretical lessons will present the deductive and inductive, experimental and observational methods used in the biologist's work. They will describe how to formulate a hypothesis, design an experiment, use an experimental model and/or make observations, encode and visualise data, process the results using basic statistical tools, and deduce a hypothesis or develop a theory based on observations.</p> <p>Emphasis will be placed on developing critical thinking skills: assessing the quality of sources of information, understanding the status of knowledge, in particular its provisional nature, recognising that every assertion must be tested and that all 'evidence' must be subjected to critical evaluation, recognising the limits of hypotheses and the situated nature of knowledge, rigorously interpreting experimental facts, becoming aware of one's representations and prejudices in one's analysis and being able to distance oneself from one's prejudices in one's analysis.</p> <p>Students will be required to implement a strategy to investigate a biological question in the lab and/or in the field. Divided into teams, they will have to design and carry out an experiment on a given scientific topic.</p>
Inline resources	Moodle website LBIO1116
Faculty or entity in charge	BIOL

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Minor in Scientific Culture	MINCULTS	4		
Bachelor in Biology	BIOL1BA	4		