

2.00 credits

20.0 h + 15.0 h

Q2

Teacher(s)	Hachez Charles ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	To follow this course, it is necessary to master the knowledge and skills developed in the courses LBIO1111 (cellular and molecular biology)
Main themes	The introduction of the course aims at situating genetics and its importance in the global context of science and society. The study of genetics is considered at two levels of organization of life. At the individual level, the general laws of gene transfer, their application to particular cases and exceptions are outlined. At the population level, the study focuses on variations in genetic characteristics.
Learning outcomes	At the end of this learning unit, the student is able to : This activity aims at: - Situating genetics in the global context of science and society; - Knowing and understanding the mechanisms governing the transmission of genes from one generation to the next and the genetic variations occurring in populations of individuals; - Being able to solve exercises related to the topics mentioned above.
Evaluation methods	Written exam covering both theory and exercises. The exam may include open-ended questions on the course material and/or one or more multiple-choice sections (MCQs).
Teaching methods	Theoretical classes and exercise sessions.
Content	Content 1. Genetics and the organism 2. Classical genetics . 2.1 Patterns of inheritance (laws of Mendel). 2.2 Chromosomal basis of heredity. 2.3 Extensions of Mendelian heredity (incomplete dominance, codominance, lethal alleles, multiple alleles, gene interactions). 2.4 Gene linkage and genetic mapping 3. Population genetics. 3.1 Hardy-Weinberg equilibrium. 3.2 Variations in populations.
Inline resources	All the necessary resources are posted on the Moodle page of the LBIO1121 course.
Other infos	Prerequisites: Cell biology course. Resources: PowerPoint presentations posted on the course's Moodle page; reference book: <i>Raven, Biology</i> , publisher: De Boeck Supérieur.
Faculty or entity in charge	BIOL

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Minor in Scientific Culture	MINCULTS	2		
Bachelor in Biology	BIOL1BA	2		
Minor in Biology	MINBIOL	2		
Bachelor in Biology, Anthropology and Archaeology	BABA1BA	3		
Master [120] of Education, Section 4 : chemistry	CHIM2M4	2		