


3.00 credits

30.0 h + 10.0 h

Q1

Teacher(s)	Dumont Patrick ;Rezsohazy René ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	have acquired the main concepts covered , for example, in LBIO1110, 1111, 1112, 1234 <i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i>
Main themes	This activity is one of the three integrated animal biology activities. It addresses reproductive biology, with a focus on mammals, and animal development, with the early development of several model animals and organogenesis in mammals.
Learning outcomes	At the end of this learning unit, the student is able to : <ul style="list-style-type: none"> • know and understand animal reproduction and development; • to understand the fundamental unity of the animal kingdom by studying the common basic mechanisms of reproduction and embryonic development of species belonging to the major phyla. • to apprehend the diversity of the animal kingdom by studying the remarkable particularities of the embryonic development of species representative of the branches, the evolutionary dimension of this diversity being underlined; • to explain in detail the concepts related to the different stages of embryonic and foetal development in vertebrates in general, and in mammals in particular.
Evaluation methods	Oral examination in three parts, with preparation time. Three questions drawn at random. One question for the first part of the course (reproduction), and two others for the second part (development: animal models; development: organogenesis). Oral discussion on the three questions and then discussion without preparation on several specific elements of the course.
Teaching methods	Participatory Lecture: Students are stimulated to raise questions and solve problems during the sessions. Details of the practical work/exercises to be specified at the beginning of the activity.
Content	<ol style="list-style-type: none"> 1. Gametogenesis, fertilization, zygote segmentation 2. Early model development: C. elegans, Drosophila, sea urchin, sea squirt, zebrafish, xenopus 3. Early development of birds and mammals: gastrulation and delimitation of the embryo and development of its appendages 4. Organogenesis in mammals: face and pharynx, musculoskeletal system, respiratory system, digestive system, cardiovascular system, urogenital system, nervous system and sense organs.
Faculty or entity in charge	BIOL

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Minor in Biology	MINBIOL	3		
Bachelor in Biology	BIOL1BA	3	LBIO1111 AND LBIO1112 AND LBIO1234A	