


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	To follow this course, it is necessary to master the knowledge and skills developed in the courses LBIO1112 et LBIO1234A
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	<p>At the end of this learning unit, the student is able to :</p> <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	<p>Oral examination in three parts, with short preparation time.</p> <p>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).</p> <p>Oral discussion on the three questions and then discussion without preparation on several specific elements of the course.</p> <p>In case of a severe failure to one of the questions, the overall mark might reflect this as a failing grade.</p> <p>In case invited speaker seminars are organized, the student report will be evaluated and will account for 1/10th of the final mark.</p>
Teaching methods	<p>Participatory Lecture: Students are stimulated to raise questions and solve problems during the sessions.</p> <p>Details of the practical work/exercises to be specified at the beginning of the activity, they will consist in seminars given by invited speakers. A short report will be produced by the students following the seminars.</p>
Content	<ol style="list-style-type: none"> 1. Gametogenesis, fertilization, zygote segmentation 2. Early model development: C. elegans, Drosophila, sea urchin, sea squirt, zebrafish, xenope 3. Early development and 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
Bachelor in Biology	BIOL1BA	3		
Minor in Biology	MINBIOL	3		