UCLouvain

lvete1250

2026

Embryology of Domestic Animals

3.00 credits	30.0 h + 5.0 h	Q1

Teacher(s)	Rivas Leonel Ellen ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	A good knowledge of the elementary zoology and the cellular and molecular biology is absolutely necessary
Main themes	The course is divided into two parts: - The embryonic period consists of gametes production, fertilization and the embryo development until its implantation in the domestic mammal species as well as the different types of placentation. The embryonic development of the bird embryo is also envisaged. An important chapter on the biotechnologies of the mammalian embryo ends this first part. - The fetal period consists of the development of the various organs and systems as well as their abnormalities of development observed in our domestic species (horse, bovine, carnivores, pig and hen).
Learning outcomes	**At the end of this learning unit, the student is able to :** 1 Understand the basic processes involved in the embryonic development and the differentiation of tissues, organs and systems of organs of our domestic mammals and the bird. That knowledge will help the student to understand more efficiently the anatomical and physiological aspects of the adult animal and the origin of the congenital abnormalities. The accent is put on the aspects more particularly important for the veterinary practice.
Evaluation methods	Oral exam with written preparation
Teaching methods	Lectures by the teacher Presentation of concepts in the form of conceptual and dynamic diagrams.
Content	The course is divided into 2 parts: embryogenesis and organogenesis. Embryogenesis comprises 3 chapters: • fertilisation (Chapter 1), • the study of the early stages of development: segmentation, blastulation, elongation, gastrulation, delimitation (Chapter 2) • and the study of foetal membranes, implantation and modes of placentation (Chapter 3). Organogenesis deals with the development and developmental abnormalities of each system. The organogenesis of • the circulatory system (Chapter 4), • the nervous system (Chapter 5), • the sense organs (Chapter 6), • the respiratory and digestive systems (Chapter 7) • and the urogenital systems (Chapter 8) will be covered in turn.
Inline resources	Full notes in the form of 2 illustrated and referenced syllabi available on the Moodle platform. Students can watch videos of the pre-recorded lessons for each chapter. They offer a dynamic view of the production of more complex diagrams on a graphics tablet, with explanations from the teacher.
Bibliography	1. Veterinary Embryology. McGeady, Quinn, FitzPatrick and Ryan. Ed Blackwell Publishing 2. Essentials of domestic animal embryology, Hyttel, Sinowatz, Veilsted, 2010
Faculty or entity in charge	VETE

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Veterinary Medicine	VETE1BA	3		