

## Topographical en Clinical Anatomy II (G000722)

Due to Covid 19, the education and evaluation methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

**Course size** *(nominal values; actual values may depend on programme)*

**Credits** 5.0      **Study time** 150 h      **Contact hrs** 65.0 h

### Course offerings and teaching methods in academic year 2020-2021

A (semester 1)	Dutch	Gent	practicum	32.5 h
			demonstration	2.5 h
			lecture: response lecture	8.75 h
			online lecture	22.5 h

### Lecturers in academic year 2020-2021

Cornillie, Pieter      D103      lecturer-in-charge

### Offered in the following programmes in 2020-2021

	<b>crdts</b>	<b>offering</b>
<a href="#">Bachelor of Science in Veterinary Medicine</a>	5	A

### Teaching languages

Dutch

### Keywords

Topography, Clinical Anatomy, Large Domestic Animals, Horse, Ox, Pig

### Position of the course

This course is extensively uses the basic knowledge gathered in the courses on the 'study of vertebrates and general anatomy of the domestic animals' (G000718). Starting from clinical cases, the anatomy relevant to the case study is highlighted and investigated. An important link is made with diagnostic imaging, surgery, orthopedics and other clinical disciplines such as internal medicine and obstetrics in which profound anatomical knowledge is essential in the correct approach and treatment of the veterinary patient.

### Contents

This part I focusses on the large domestic animals, mor specific the horse, ruminants and pig. However, when relevant, small comparative sidesteps are made towards the small domestic animals (for the subjects that are not featured separately in the Topogrphic and Clinical Natomy part II).

Apart from an overview of relevant anatomy in the general clinical approach (orientation, palpation (e.g. pulse, venipuncture, lymph nodes,...), the following major anatomical themes are all addressed from clinical perspective:

- Limbs, biomechanics and anatomy of locomotion. Special focus: kniematics, stay apparatus, lower limb anatomy, hoof and claw. Links to clinics: the lame animal, diagnostic imaging (RX, ultrasound, tenoscopy), local anesthesia, punction of synovial spaces, claw amputation,...
- Head & skull (external), nose, mouth, pharynx, larynx. Special focus: teeth (including age estimation), tonsils, sinuses, upper airways, larynx & guttural pouches, salivary and endocrine glands. The anatomical basis for laryngeal hemiplegia in horses, dehorning in cattle, local anesthesia of face and ears, cranial nerve injuries, diagnostic imaging (endoscopy) of the upper airways,...
- Topography of abdominal and pelvic organs (both in adult and young animals). Special focus: digestive system & reproductive system. Anatomical basis for colics in horses and cattle, displacement of the abomasum, rumen pathology, castration, artificial insemination, the pregnant animal, downer cow, the lactating animal,...

### Initial competences

A thorough knowledge of the general anatomy of the domestic animals as taught in G000718 is a prerequisite.

### **Final competences**

- 1 Illustrate and comment by means of an own schematic drawing the anatomical components involved in or determining the predisposition, the origin and/or course of common clinical conditions in large domestic animals, or that are relevant in the approach of the specific problem.
- 2 Illustrate the topographical organisation of clinically relevant anatomy in the external (e.g. palpation points) as well as invasive clinical exploration (e.g. surgery) in large domestic animals, and recognize these structures on prosection (surgical field) or pictures.
- 3 Perform a meticulous anatomical dissection, with selective saving of structures or using a least destructive approach, and identify the revealed anatomical structures.
- 4 Anatomically interpret normal diagnostic images of large domestic animals and correlate the findings with the actual anatomical specimens.
- 5 Indicate clinically relevant orientation, palpation, auscultation, percussion puncture and biopsy locations on cadavers and carcasses of large domestic animals.
- 6 Realize the need for and correctly apply the (bio)safety measures when working with animal cadavers.
- 7 Handle animal remains that are used for educational purposes in a respectful and rational way.

### **Conditions for credit contract**

Access to this course unit via a credit contract is determined after successful competences assessment

### **Conditions for exam contract**

This course unit cannot be taken via an exam contract

### **Teaching methods**

Demonstration, practicum, lecture: response lecture, online lecture

### **Extra information on the teaching methods**

The online knowledge clips, and knowledge from earlier courses (e.g. Study of Vertebrates and General Anatomy of Domestic Animals) form the theoretical basis on which the interactive practical lectures continue.

In the knowledge clips, specific veterinary clinical cases featuring large animals and scientific literature are used to elaborate on the clinical anatomy that is essential to understand the given pathology, to interpret diagnostic images and to allow a correct surgical approach.

The demonstrations and practicals (cadaver studies) further support the development of the necessary insights and skills.

### **Learning materials and price**

Syllabus, online knowledge clips, scientific literature relevant to the subject, drawings and sketches, guidelines for the practicals, anatomical specimens, reference list of textbooks also available for consultation in the department's library.

### **References**

Budras et al.: Anatomy of the Horse. (Schlütersche)

Budras et al.: Bovine Anatomy. (Schlütersche)

### **Course content-related study coaching**

Guidelines and examples for the examination are given in the courses during the semester. A member of the teaching staff is present during the practicals. All educational staff members can also be consulted after appointment.

### **Evaluation methods**

end-of-term evaluation and continuous assessment

### **Examination methods in case of periodic evaluation during the first examination period**

Oral examination, skills test

### **Examination methods in case of periodic evaluation during the second examination period**

Oral examination, skills test

### **Examination methods in case of permanent evaluation**

Participation

### **Possibilities of retake in case of permanent evaluation**

examination during the second examination period is not possible

## Extra information on the examination methods

### Practical part:

- Evaluation of essential knowledge: recognize basic anatomical structures and indicate commonly used orientation points
- Dissection of an anatomical specimen
- Recognize prosected anatomical structures (cfr. practicals) and correlate normal diagnostic imaging with actual anatomical specimens

### Theoretical part:

Oral evaluation after written preparation:

Evaluation of the insights in the topographic organisation and anatomical approach of clinically relevant structures and regions in large animals. For this approach, prosected cadavers, museum specimens and / or digital pictures are used. At the start of the written preparation, the student learns the type of cadavers and regions that are prosected, and is asked to schematically draw and comment the topographical anatomy of that region. At the oral examination, the drawing is evaluated and compared to the actual situation in prepared cadavers. The oral examination ends with some minor questions with the available specimens and pictures as basic subject.

*In the light of the Covid19 measurements, the oral examination can be replaced by a fully written examination. The recognition of anatomical structures on cadavers will be replaced by similar questions on photographic material.*

## Calculation of the examination mark

Dissection skills and relevant knowledge: 5/20

Oral evaluation of theory + practical insights: 15/20 of which

- General anatomical knowledge: 5 points
- Applied anatomy: 5 points
- Cadaver study: 5 points

Permanent evaluation during practicals: repeatedly and deliberately not participating in the practicals can lead to a fail mark for the entire examination.

## Facilities for Working Students

Students who have an employment cannot be exempted from participating in the practicals. They can however follow these practicals according to a personalised scheme that has been approved by the responsible teacher in advance.