

Comparative and Systematic Veterinary Anatomy I

(3 CFU)

33 hours: 25 hrs of frontal lessons and 8 hrs of practical lessons

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Learning goal of the course: at the end of the course the student will know the structural organization of the locomotor apparatus in Domestic Mammals. The student will be able to recognize and describe the bones, the joints and the main muscles of the mammal body.

Lectures

| Objectives | Subjects | Specific contents | Hours |
|------------------------------------|---------------------------------------|---|-------|
| 1. OSTEOLOGY (12 HOURS) | <i>Generality of the course</i> | Presentation of the course program. Teaching material (power point files) provided by the teacher. Suggested books. Rules of the final examination. | 0.5 |
| | <i>Skeleton</i> | Classification of the bones. | 0.5 |
| | | Axial and appendicular skeleton. Vertebral column: vertebrae. | 1 |
| | | Cervical, thoracic, lumbar, sacral, and caudal vertebrae. Ribs and sternum. | 2 |
| | | Head: skull, mandible and hyoid apparatus. | 1 |
| | <i>Forelimb</i> | Scapula, clavicle. Humerus, radius and ulna. Carpal and metacarpal bones. Proximal, middle and distal phalanges. | 2 |
| | <i>Hindlimb</i> | Pelvic girdle. Femur, tibia and fibula. Tarsal and metatarsal bones. | 2 |
| 2. ARTHROLOGY (6 HOURS) | <i>Classification</i> | Fibrous and cartilaginous joints. Synovial joints. | 1 |
| | <i>Joints of the vertebral column</i> | Intervetebral articulations. | 0.5 |
| | <i>Joints of the thorax</i> | Costovertebral and costotransverse joints. Costosternal joint and intersternal joints. | 0.5 |
| | <i>Joints of the forelimb</i> | Shoulder joint. Elbow joint. Radioulnar articulations. Carpal joints. Articulations of the digits: metacarpophalangeal, proximal and distal interphalangeal joints. | 2 |
| | <i>Joints of the hindlimb</i> | Sacroiliac joint. Hip joint. Stifle joint and tarsal joint. | 2 |

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| 3. MIOLOGY (10 HOURS) | <i>Organization of skeletal muscle</i> | General considerations. Muscular action. Accessory structures associated with muscles. | 0.5 |
| | <i>Muscles of the head, thorax and abdomen</i> | Muscles of mastication. Diaphragm. Sublumbar muscles. | 1.5 |
| | <i>Muscles of the forelimb</i> | Muscles of the shoulder joint. Muscles of the elbow joint. Muscles of the radioulnar joint. Muscles of carpal and digital joints. | 4 |
| | <i>Muscles of the hindlimb</i> | Muscles of the hip joint. Muscles of the stifle joint. Muscles of the tarsal and digital joints. | 4 |

The Course includes 8 hours of practical activity that will be held in the dissecting room. Students will be divided in 4 shifts of about 23/25 unit each. During this section they can study osteology, using preparations belonging to the Horse, the Bovine, the Dog and the Cat.

Dry preparations of arthrology and miology will be available. The Tutor of the Course will always be present. The dissection room will be available also in extra hours, without the assistance of the Tutors, throught the lesson period, while on Friday morning a Tutor will be present in the Room.