

#### Información del Plan Docente

Academic Year 2018/19

**Subject** 28433 - Integration: Equidae

Faculty / School 105 - Facultad de Veterinaria

**Degree** 451 - Degree in Veterinary Science

**ECTS** 7.0

Year 4

**Semester** Annual

Subject Type Compulsory

Module ---

- 1.General information
- 1.1.Aims of the course
- 1.2.Context and importance of this course in the degree
- 1.3. Recommendations to take this course
- 2.Learning goals
- 2.1.Competences
- 2.2.Learning goals
- 2.3.Importance of learning goals
- 3.Assessment (1st and 2nd call)
- 3.1. Assessment tasks (description of tasks, marking system and assessment criteria)
- 4. Methodology, learning tasks, syllabus and resources
- 4.1. Methodological overview

The learning process designed for this topic is based on lectures, demonstrations and laboratory sessions, problem and case-based learning sessions, on-line multimedia material and autonomous work.

## 4.2.Learning tasks

The activities are detailed in the following table:



Learning Task	Face‐to̴ hours	8;face FACTOR	Off-site hours	TOTAL
Theory lectures	60	0.83	50	110
Practices and wet-lab sessions	27.5	0.54	15	42.5
Multimedia			11	11
Tutorials			6.5	6.5
Exams	No		5	5
Total	87.5	1	87.5	175

## 4.3.Syllabus

## LECTURES: 60 hours

## **MODULE 1 (5 h)**

- Topic 1: General overview of management, uses, facilities and official documentation of horses (1)
- Topic 2: Equine nutrition (2)
- Topic 3: Breeding in sport and athletic horses (1)
- Topic 4: Sedation and anesthesia in horses (1)

## **MODULE 2: GASTROINTESTINAL TRACT (12 h)**

- Topic 5: Oral cavity (1)
- Topic 6: Parasitic diseases with particular impact in the digestive tract (including dictocaulosis) (2)
- Topic 7: Diseases of the gastrointestinal tract without acute colic symptomatology: EGUS, esophageal choke, inflammatory bowel disease and malabsorption, chronic diarrhea (1)



- Topic 8: Colic syndrome: classification and clinical exploration. Importance of endotoxemia in equine clinic (2)
- Topic 9: Fluid therapy and medical treatments of colic (1)
- Topic 10: Decision making, principles of colic surgery and postoperative complications (1)
- Topic 11: Diseases that cause colic in stomach, small intestine and cecum
- Topic 12: Diseases that cause colic in large colon (including acute colitis) (1)
- Topic 13: Diseases that cause colic in small colon. Other clinical processes: rectal lacerations and prolapse, peritonitis and abdominal herniation (1)
- Topic 14: Acute and chronic diarrhea. Inflammatory bowel disease and malabsorption (including pathology) (1)

## **MODULE 3: OTHER ORGANIC SYSTEMS AND APPARATUS (13 h)**

- Topic 15: Main cardiac arrhythmias and heart murmurs (1)
- Topic 16: Main urinary diseases: bladder stones, acute and chronic renal insufficiency (1)
- Topic 17: Endocrine, metabolic and liver diseases (1)
- Topic 18: Main diseases in equine ophthalmology (1)
- Topic 19: Main non-infectious or parasitic neurological diseases (1)
- Topic 20: Neurological infectious diseases (2)
- Topic 21: Neurological parasitic diseases. Systemic and notifiable parasitic diseases (1)
- Topic 22: Systemic and notifiable infectious diseases (2)
- Topic 23: Dermatology: skin neoplasms, processes of allergic origin (1)
- Topic 24: Dermatology: processes of parasitic and infectious etiology (1)
- Topic 25: Gross pathology of module 5 (1)

#### **MODULE 4: RESPIRATORY TRACT (7 h)**



- Topic 26: Upper respiratory tract: nasal cavity, sinus, pharynx, larynx, guttural pouches and trachea (2)
- Topic 27: Lower respiratory tract: not-infectontagious diseases. Pneumonia. Conditions of the pleural cavity and chest wall, pleuropneumonia (2)
- Topic 28: Bacterial respiratory diseases (1)
- Topic 29: Viric respiratory diseases (1)
- Topic 30: Gross pathology of respiratory tract (1)

## **MODULE 5: LAMENESSES (10 h)**

- Topic 31: Semiology and diagnosis. Diagnostic regional and intrasinovial blocks (1)
- Topic 32: Hoof care. Principles of normal and therapeutic shoeing (0'5)
- Topic 33: Laminitis (1'5)
- Topic 34: Injuries of the hoof (1)
- Topic 35: Bone diseases (1)
- Topic 36: Wound management, orthopedics emergencies and bandages (1)
- Topic 37: Osteoarthritis (Degenerative Joint Disease) (1)
- Topic 38: Podothroclear syndrome and caudal hoof pain (1)
- Topic 39: Tendon and ligament injuries (1)
- Topic 40: Muscular diseases and myopathies. Causes of back pain (1)

# MODULE 6: REPRODUCTION. STUD FARM DISEASES (8 h)

- Topic 41: Exploration of the Mare (including uterine biopsies and cytology) and estrous cycle control (1)
- Topic 42: Stallion exploration. Semen extraction, evaluation and conservation (1)
- Topic 43: Mare and stallion infertility (1)



- Topic 44: Natural breeding, artificial insemination and embryo transfer (1)
- Topic 45: Infectious and parasitic diseases of reproductive tract and sexual transmission, including infectious abortions (1)
- Topic 46: Management of gestation. Problems during pregnancy and non-infectious abortions (1)
- Topic 47: Partum induction, dystocia, caesarean-section and puerperal problems (1)
- Topic 48: Stallion and mare urogenital surgery (sudden procedures) (1)

## **MODULE 7: NEONATOLOGY AND COLTS (5 h)**

- Topic 49: Birth: fetal viability, neonatal resuscitation, adaptation of extra-uterine life. The sound foals. Sick newborn warning signs. Hypoxic-ischemic neonatal encephalopathy (1)
- Topic 50: Failure transfer of passive immunity. Neonatal sepsis. Neonatal isoeritrolisis. (1)
- Topic 51: Other common diseases of the newborn and the colts: umbilical and scrotal hernias, umbilical stump and bladder disorders, septic arthritis/polyarthritis (1)
- Topic 52: Developmental Orthopedic Diseases, (1)
- Topic 53: Gross pathology of modules 6 and 7(1)

#### PRACTICAL SESSIONS: 27,5 face-to-face workshop hours

- Session 1: Preparation of rations (2 hours) (12 groups) Computer room
- Session 2: Qualitative and quantitative coprology of parasitic processes. Stool culture. Parasitological post-mortem diagnostic (2 hours) (12 groups) Laboratory of Parasitology.
- Session 3: Lameness examination: inspection and static exam with lame horses (1.5 hours) (24 groups) HVUZ.
- Session 4: Lameness examination: dynamic exam with lame horses and/or and/or Computerized Lameness Simulator (1.5 hours). (24 groups) HVUZ and/or Computer room.
- Session 5 Peri-neural anesthesia and arthrocentesis of the distal limb of the horse, dissection of the distal limb (3 hours) (24 groups) Wet lab with postmortem specimens in Surgical lab.
- Session 6: Case-based learning session: "¡SOS: my horse is in colic!" (2 hours) (12 groups)



- Session 7: Case-based learning session: "¡My horse show respiratory noises...!" ¡ My horse coughing with/without nasal discharge...!" (2 hours) (12 groups)
- Sessions 8 and 9: Genital exploration of the mare. Evaluation and preparation of seminal doses (3.5 hours) (24 groups). Teaching farm-ship with mares and Biotechnology lab
- Session 10: Case-based learning session: "¡Infertile mare...!. Danger: abortions!..." (2 hours) (12 groups)
- Session 11: Case-based learning session: "¡My newborn foal is ill...!" (2 hours) (12 groups)
- Session 12: Problem-based learning session: "I just bought a horse..." (2 hours) (12 groups)
- Session 13: Necropsy technique in horses: visualization of the equine digestive tract and other internal organs (2 hours) (6 groups) Necropsy room.
- Session 14: Advanced clinical examination Pre-purchase examination (2 hours). (24 groups) Teaching farm-ship with horses

#### MULTIMEDIA FILES SELF-STUDY:11 hours of autonomous work

Students must watch (individually or in a group) the following multimedia files. These activities must be carried out before the respective theoretical lectures.

- Video: The horse digestive system, Horse digestion guide Equine Nutrition Feedstuffs y The horse body condition (1 hour) (before Topic 2)
- CD Equine Dental (before Topic 5) (1 hour)
- CD Passing nasogastric tube in the horse (before Topic 7) (1 hour)
- DVD Equine Colic (before Topic 8) (2 hours)
- CD Cardiac sounds (before Topic 15 (1 hour)
- CD Equad: upper respiratory tract (before Topic 26) (1'5 hours)
- CD Reproductive ultrasound in mares (before Topic 41) (0'5 hours)
- CD Foal in Mare (before Topic 47) (1 hour)
- CD Fetal and maternal dystocia in the mare (before Topic 47) (1 hour)



- Video: Urogenital surgeries in the horse (before Topic 48) (1 hour
- 4.4.Course planning and calendar
- 4.5.Bibliography and recommended resources