Universitat de Lleida

DEGREE CURRICULUM

SWINE HEALTH AND CLINICS

Coordination: MARTÍNEZ LOBO, FRANCISCO JAVIER

Academic year 2020-21

SWINE HEALTH AND CLINICS 2020-21

Subject's general information

Subject name	SWINE HEALTH AND CLINICS
Code	100365
Semester	2nd Q(SEMESTER) CONTINUED EVALUATION
Typology	

Degree	Course	Character	Modality
Double bachelor's degree: Bachelor's Degree in Veterinary Medicine and Bachelor's Degree in Science and Production	4	COMPULSORY	Attendance-based

Course number of credits (ECTS)	6
Type of activity, credits, and groups	

Activity type	PRACLIN	PRAULA	TEORIA
Number of credits	0.8	2.2	3
Number of groups	8	4	1

Coordination	MARTÍNEZ LOBO, FRANCISCO JAVIER
Department	ANIMAL HUSBANDRY
Teaching load distribution between lectures and independent student work	Lectures: 60 hours Independent student work: 90 hours
Important information on data processing	Consult this link for more information.
Language	Spanish Catalan
Distribution of credits	Theory (i.e. Lectures): 3 credits Practical lessons: 3 credits

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
BLANCO ABILLA, GERARDO	gerardo.blanco@udl.cat	,5	
MARTÍNEZ LOBO, FRANCISCO JAVIER	javier.martinezlobo@udl.cat	17,7	

Learning objectives

Knowledge objectives:

1. The student should know the main methods and procedures of clinical examination pigs. The student should know the laboratory diagnostic techniques used in swine production medicine as well as analyze and interpretate them.

2. The student should know the diseases related to reproductive failure, its diagnosis and its most appropriate treatment. In addition, the student must know the diagnosis and treatment of infectious and parasitic diseases affecting pigs, including measures to prevent the infection of susceptible animals and the spread of the infectious agent from infected animals.

Capacity objectives:

1. Establish the most appropriate treatment of diseases that affect the pig.

2. Design and implement control and eradication plans for the main contagious diseases of pigs

Competences

Basic competences

CB1. To have and understand knowledge in an area of study that starts at the base of general secondary education, and is usually found at a level that, although supported by advanced textbooks, also includes some aspects that involve knowledge from the avant-garde from your field of study.

CB2. Apply your knowledge to your work or vocation professionally and have the skills that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within your area of study.

CB3. Ability to collect and interpret relevant data (usually within their area of study) to issue judgments that include a reflection on relevant issues of a social, scientific or ethical nature.

CB4. To be able to transmit information, ideas, problems and solutions to a specialized audience as not specialized.

CB5. Know how to develop those learning abilities necessary to undertake further studies with a high degree of autonomy.

General competences

CG2. Prevention, diagnosis and individual or collective treatment, as well as the fight against animal diseases, are considered individually or in a group, particularly zoonoses.

CG4. The obtaining in optimal and economically profitable conditions of products of animal origin and the assessment of its environmental impact.

CG5. Knowledge and application of legal, regulatory and administrative provisions in all areas of the veterinary profession and public health, including the ethical implications of health in a changing global context.

CG6. Development of professional practice with respect to other health professionals, acquiring skills related to team work, efficient use of resources and quality management.

CG7. Identification of emerging risks in all areas of the veterinary profession.

Specific competences

CE14. Identify and apply the clinical examination methods and procedures, complementary diagnostic techniques and their interpretation, as well as identify and apply the foundations of the necropsies.

CE16. Identify and apply the recognition and diagnosis of the different types of lesions and their association with the pathological processes.

CE17. Know and apply the clinical study of the patient and the medical, surgical or hygienic-dietary treatments that he requires, as well as sporadic diseases that affect groups.

CE19. Understand the principles of reproduction, part, puerperium and assisted reproduction: Cures and illnesses.

CE20. To know the general pharmacological bases and study the different types of drugs, pharmacotherapy, identify natural and synthetic toxics and apply the principles of animal and environmental toxicology.

CE22. Know the infectious and parasitic diseases of veterinary interest including their diagnosis and fight as well as apply the bases of Zoonoses and Public Health.

CE39. Treat and manipulate animals safely and humanely, and instruct other people on how to properly perform these techniques.

CE40. Perform basic analytical techniques and interpret their clinical, biological and chemical results, interpret the results of the tests generated by other laboratories as well as collect, preserve and send all kinds of samples with their corresponding report.

CE41. Diagnose the most common diseases by using different general and instrumental techniques.

CE42. Use radiographic and ultrasonographic equipment, as well as other equipment that can be used as a means of diagnosis, in a secure way and complying with the regulations.

CE44. Address emergencies and first aid in veterinary medicine.

CE46. Evaluate and interpret the productive and health parameters of an animal group, considering the economic

and welfare aspects.

Transversal competences

CT1. Acquire an adequate understanding and oral and written expression of Catalan and Spanish.

CT2. Acquire a significant command of a foreign language, especially English.

CT3. Acquire training in the use of new technologies and information and communication technologies.

CT4. Acquire basic knowledge of entrepreneurship and professional environments.

CT5. Acquire essential notions of scientific thought.

Subject contents

Lecture Program (3 credits)

1: Visit and evaluation of swine herds. Evaluation of animals and facilities. Clinical history. (2 hours)

2: Disease transmission and biosecurity in swine (1 hour)

3: Control of the diseases. Surveillance of endemic and exotic diseases. Active and pasive surveillance. Disease eradication protocols: theory and practical cases. (2 hours)

4: Non infectious reproductive failure. (2 hours)

5. Differential diagnosis of infectious reproductive failure. (5 hours)

6. Causes of sow mortality: Diagnosis, treatment and control (1 hour).

7: Differential diagnosis of diseases and conditions in growing pigs: neurological and digestive diseases. Health and clinical measures. (4 hours)

8. Differential diagnosis of diseases and conditions in growing pigs: respiratory and sistemic diseases. Health and clinical measures. (2 hours)

9. Differential diagnosis of diseases and conditions in fattening pigs: neurological and digestive diseases. Health and clinical measures. (2 hours)

10. Differential diagnosis of diseases and conditions in fattening pigs: respiratory and sistemic diseases. Health and clinical measures. (5 hours)

11: Gilt management during acclimatization. Vaccination programs in porcine (2 hours).

12: Anesthesia and surgery in the pig (1 hour)

13: Micotoxicosis in swine. Swine toxicoses.

Practicals (3 credits)

Part 1: Seminars

1. Clinical case of reproductive failure (1)
2. Clinical case of reproductive failure (2)
3. Clinical case of neonatal diarrheas.
4. Clinical case of diarrheas in growing pigs
5. Clinical case of neurological disorders in growing pigs

6. Clinical case of porcine respiratory disease complex
7. Clinical case of non infectious disease.

Part 2: Field work will be conducted on commercial swine farms (depending on the availability of farms and their health status)

1. Farm visit: review building/equipment designs; practical swine reproductive management; swine record systems...
2. Sampling techniques

Part 3: Necropsy/Surgery

1. Evaluation systems of lung lesions of pigs at slaughter
2. Surgery

Part 4: Group work

Oral communication of clinical cases of topics non covered during the course

Methodology

The teaching is structured in theory sessions, presentations, seminars and practices, according to the time schedule included in the course plan

1.Theoretical classes. Theory classes are based on participatory classes so the student may ask about the matter not understood of each topic. Each session corresponds to a specific topic.

2. Practical classes. The practices are seminars, field work, necropsies, surgeries and group work

Students will have the teaching material in the electronic dossier that appears in ***Resources*** folder

**** The methodology of the theoretical and practical classes may be altered throughout the course according to the public health status and the measures adopted by the University and/or Public Health Agencies against the health crisis caused by COVID-19.***

Development plan

The schedule and the development plan will be found in the Resources folder

Evaluation

The evaluation is composed of two partial exams

First partial exam. It will count 25% of the final mark. The minimun mark must be a 5 out to 10. This exam has two parts: 50% test (minimun mark 5) and 50% written exam (minimum mark 5)

second partial exam. It will count 45% of the final mark. The minimun mark must be a 5 out to 10. This exam has two parts: 50% test (minimun mark 5) and 50% written exam (minimum mark 5)

At the end of the semester there will be a recovery exam in which the student who has suspended a partial, may

recover it.

In case of suspension of both partial, the student must submit to both recovery exams.

Other activities of continuous evaluation: Practices with evaluation (seminars clinical cases, visit to farm, etc), will be 20% of the final mark. Group work will be 10% of the final mark

Bibliography

Recommended Books

1. Radostis, O.M., Gay, C.C., Hinchcliff, K.W., Constable, P.D. (2006). Veterinary Medicine. A textbook of the diseases of Cattle, Sheep, Pigs, Goats and Horses. 10th Edition. Ed. WB Sauders. Elsevier.
2. The Merck Veterinary Manual (2011). Editor Cynthia M. Kahn. 9th Edition. Published by Merck Sharp & Dohme Corp., a subsidiary of Merck & Co. Inc. Whitehouse Station, NJ, USA.
3. Es tracta d'un llibre de consulta que tracta amb gran deteniment les malalties que afecten el bestiar porcí. Cada capítol està escrit per un expert i la informació que conté és molt exhaustiva, de manera que la seva utilitat pràctica per als alumnes de grau és limitada.
4. Muirhead M.R., Alexander TJL (1997). Managing pig health and the treatment of disease. A reference for the farm. 5M Enterprises Ltd. Sheffield, U.K.
5. Domingo M, Segalés J. (2005). Casos de patología porcina (volumen 1, 2 y 3). Editor Novartis Sanidad Animal S.L.. Editorial Edika Med, Barcelona.
6. Gómez Cabrera S. (2010). Atlas de anatomía patológica del aparato respiratorio del cerdo. 1ª Edición. Editorial Servet, Zaragoza.
7. Smith T (2005). Atlas de patología porcina. 1ª Edición. Editorial McGraw-Hill Interamericana, México.

Series

The Veterinary Clinics of North America with its monographies *Food Animal Practice*, *Equine Practice*, *Small Animal Practice* y *Exotic Animal Practice*. In Spain the serie *Porci* is highly recommendable

Scientific Journals

Relevant information related to diseases and etiolgical agents is in journals of *Veterinary Science* at *Journal Citation Reports.*

Web sites

https://www.aasv.org/

http://www.eaphm.org/