Universitat de Lleida

DEGREE CURRICULUM
HEALTH MANAGEMENT

Coordination: FRAILE SAUCE, LORENZO JOSÉ

Academic year 2021-22

Subject's general information

Subject name	HEALTH MANAGEMENT
Code	11014
Semester	ANUAL CONTINUED EVALUATION

Typology	Degree	Course	Character	Modality
	Master's Degree in Swine Health and Production (R2015)	1	COMPULSORY	Attendance-based

Course number of credits (ECTS)	12

Type of activity, credits, and groups	Activity type	PRAULA	TEORIA
	Number of credits	1.2	2.8
	Number of groups	1	1

Coordination	FRAILE SAUCE, LORENZO JOSÉ
Department	ANIMAL HUSBANDRY
Important information on data processing	Consult this link for more information.
Language	Spanish

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
FRAILE SAUCE, LORENZO JOSÉ	lorenzo.fraile@udl.cat	4	

Subject's extra information

- Dr. Jose Manuel Sánchez-Vizcaíno (UCM)

- Dr. Joaquin Goyache (UCM)

- Dra Beatriz Isabel (UCM)

- Dra. Victoria Falceto (UNIZAR)

Learning objectives

Design and evaluate the swine disease prevention and control program.

Diagnosis, monitoring and control of the main swine diseases

Competences

Competencies

Basic skills:

CB1, CB2, CB3, CB4, CB5.

General competences:

CG1, CG2, CG3, CG4, CG5, CG6, CG7, CG8.

Specific skills:

CE29 Know how to propose the control and prevention of diseases based on their scientific knowledge.

CE305 Ability to discern those aspects of the disease that are useful from a practical point of view.

CE31 Know how to apply the knowledge acquired about specific diseases to other diseases.

CE32 Know where to look for existing information sources in relation to scientific-technical knowledge of pig diseases

CE33 Interpret and understand scientific-technical information on swine immunology.

CE34 Design and analyze epidemiological studies for the evaluation of treatments, vaccines, and other disease control strategies.

CE35 Be able to determine the most appropriate control strategy (s) against specific diseases

CE36 Know how to apply the existing legislation on swine health

CE37 Make a clinical diagnosis and design a differential diagnosis.

CE38 Know the diagnostic tests that laboratories currently make available to you

CE39 Evaluate the quality of a diagnostic test

CE40 Select the most appropriate diagnosis for each situation

CE41 Take and prepare for shipment the necessary samples to perform the diagnostic tests you have chosen in a specific situation.

CE42 Correctly interpret the results of the diagnostic tests that are currently available to you, compare their results and make a definitive differential diagnosis of the disease.

Subject contents

4.1- FUNDAMENTALS OF HEALTH:

Theoretical program

- Immunology: bases and applications.

- Epidemiology (Transmission and evolution of diseases in populations, sampling, epidemiological studies and field tests).

- Disease control and prevention (Biosafety, management, therapy and vaccination as tools to carry it out).

- Legal aspects of animal health (drug law, animal health law, specific legislation on diseases - classical and African swine fever, foot-and-mouth disease and Aujeszky's disease.

Practical program

- Round tables

- Computer practices. Programs Epi-Info, WinEpiscope, Geographical Information System, Reed-Frost Models and Biosafety.

4.2- PIG DISEASES:

Theoretical program

- Porcine reproductive and respiratory syndrome (PRRS).

- Porcine circovirosis.

- Streptococcus / Glässer's disease.

- Porcine actinobacillosis.

- Porcine respiratory complex (Mycoplasma hyopneumoniae and its interaction with other viruses and bacteria).

- Porcine digestive complex (includes infection by Brachyspira spp., Lawsonia intracellularis and Salmonella spp.)

- Colibacillosis / clostridiosis.

- Diseases relevant to international trade: Classical swine fever, African swine fever and foot-and-mouth disease.

Practical program

-Round tables

- Case analysis

4.3- DIAGNOSIS:

Theoretical program

-Clinical diagnosis and diagnostic tests (fundamentals, advantages and disadvantages of their use, sensitivity and specificity of each test. Choice of tests in each disease)

-Choosing the most suitable type of sample. In vivo and postmortem sampling. Preparation of the clinical history and shipment of samples to the laboratory.

-Study and interpretation of diagnostic results. Predictive values and likelihood ratios.

Practical program

-Follow-up of diseases in slaughterhouse (reproductive, respiratory, digestive problems, liver parasites and scabies)

-Necropsy practices and pathological diagnosis of the main swine diseases after a theoretical introduction.

-Study and interpretation of reports. Preparation of reports

-Discussion and interpretation of diagnostic results of clinical cases.

-Videos

-Exhibition of personal work and own cases

-Questionnaires

-Round tables.

Methodology

Teaching methodology:

Face-to-face activities:

- Master class

- Practices

- Analysis of practical cases and defense of the work carried out

- Seminars and round tables

Autonomous work:

- Work for the study and for the acquisition of the knowledge of the matter and the realization of its corresponding applications.

Activities:

Activity	Hours	Percentage of personnel presence
Lectures	60	100
Practices	20	100
Clinical cases	35	100
Seminars	5	100
Autonomous work	180	0

Development plan

The development calendar will be published on the virtual campus

Evaluation

The evaluation of the subject will be made from the continuous evaluation of each of the programmed activities. Each subject will have a continuous assessment system in which no assessment activity may have a weight greater than 50% of the total grade.

Assessment of activities considered in the evaluation:

Evaluation system	Minimum percentage (%)	Maximum percentage (%)
Exams	40	60
Clinical cases evaluation	30	50
Practices	10	35
Other activities (personalized assesments)	20	35

Bibliography

Bibliography:

Thrusfield, M. 1995. *Veterinary epidemiology*. 2nd ed. Blackwell Science Ltd, Oxford.

Martin, S. W., A.H. Meek, y P. Willeberg, P. 1987. Veterinary epidemiology. Principles and methods. Iowa Statte University Press, Ames, Iowa.

Casal, J., E. Mateu de Antonio. 1999. Problemas de Epidemiología Veterinaria. Servicio de Publicaciones de

la Universidad Autónoma de Barcelona, Bellaterra.

Pfeiffer, D. U. 1999. Veterinary epidemiology - An introduction. http://www.rvc.ac.uk/epibook .

Petrie, A., P. Watson. 1999. Statistics for Veterinary and Animal Science. Blackwell Science Ltd. Oxford.

Radostis, OM (2001). Herd health. Food animal production medicine. 3º edition. Saunders company.

Toma B, Dufour, B, Sanaa, M, Benet, JJ, Ellis P, Motou, FY, Louza A. (1999). Applied veterinary epidemiology and the control of disease in populations. AEEMA.

Dufour B, Hendrixx, P (2009). Epidemiological surveillance in animal health. 2º edition OIE.

Muirhead, MR, Alexander TJ (2001). Manejo sanitario y tratamiento de las enfermedades del cerdo. Referencias para la granja. Intermédica.

Diseases of Swine, 8th Edit., B Straw, SD 'Allaire, W Mengeling, DJ Taylor, Eds., Iowa State University Press, Ames USA, 1999.

BOTANA, LANDONI, MARTÍN-JIMÉNEZ. *Farmacología y terapéutica veterinaria*. 2002. Ed. McGraw Hill. Madrid.

ADAMS. *Farmacología y terapéutica veterinaria.* 2003. Ed. Acribia. Zaragoza.

RIVIERE. *Veterinary Pharmacology and Therapeutics*. 2009. Ed. Wiley-Blackwell

HOWARD & SMITH. *Current Veterinary Therapy. Food animal practice*. 1999. Ed. WB Saunders Co. Philadelphia.

Websites:

http://www.cdc.gov

http://www.rvc.ac.uk/epivetnet/

http://www.oie.int

http://www.who.int

http://www.mapa.es/es/ganaderia/ganaderia.htm

http://www.sanidadanimal.info

Complementary

Acha, P. N., y Szyfres, B. (1986). "Zoonosis y enfermedades transmisibles comunes al hombre y a los animales". 2a ed. Organización Panamericana de la salud, Washington, D.C. **T22**.

Boothe D.M., Slater M.R. (1995). Standards for veterinary clinical trials. Adv. Vet. Sci. Comp. Med. **39**, 191-252. **T16**..

Dohoo, I. R., y Waltner-Toews, D. (1985). Interpreting clinical research. Part I. General considerations. Compend. Contin. Educ. Pract. Vet. **7**, S473-S478. **T14**.

Dohoo, I. R., y Waltner-Toews, D. (1985). Interpreting clinical research. Part II. Descriptive and experimental studies. Compend. Contin. Educ. Pract. Vet. **7**, S513-S519. **T14, T16**.

Dohoo, I. R., y Waltner-Toews, D. (1985). Interpreting clinical research. Part III. Observational studies and interpretations of results. Compend. Contin. Educ. Pract. Vet. **7**, S513-S519. **T14, T15**.

Elbers A.R., Schukken Y.H. (1995). Critical features of veterinary field trials. Vet. Rec. **136**, 187-192. **T16**

Gardner, I., y Greiner, M. (2000). Special issue: validation and application of diagnostic test in Veterinary epidemiological studies. Prev. Vet. Med. **45** (1-2). **T10, T11**.

Radostits, O. M. (2001). "Herd Health: food animal production medicine". 3rd ed. W.B. Saunders Co., Philadelphia. **T22**.

Schwabe, C. W. (1984). "Veterinary medicine and human health". 3rd. ed. William & Wilkins, Baltimore. **T22**.