

COURSE DESCRIPTION

COURSE DETAILS

Title (of the course): **ENFERMEDADES PARASITARIAS**

Code: 101474

Degree/Master: **GRADO DE VETERINARIA**

Year: 3

Name of the module to which it belongs: CIENCIAS CLÍNICAS Y SANIDAD ANIMAL

Field: ENFERMEDADES PARASITARIAS

Character: OBLIGATORIA

Duration: ANUAL

ECTS Credits: 9.0

Classroom hours: 90

Face-to-face classroom percentage: 40.0%

Study hours: 135

Online platform:

LECTURER INFORMATION

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PREREQUISITES AND RECOMMENDATIONS

Prerequisites established in the study plan

It is necessary to have passed the course of Parasitology (2nd year, Degree in Veterinary Science.) Students must have a B1 level in English of the Common European Framework of Reference Languages, in order to be able to enroll in the English itinerary of the course.

Recommendations

This course is organized as a bilingual programme, partly in English and Spanish, as an option for some students, according to the guidelines of the Plan for the Promotion of Plurilingualism of the University of Cordoba 2023-2026 (https://www.uco.es/poling/wp-content/uploads/2023/03/PlanPlurilinguismo_2023-2026.pdf).

The course is organized in theory classes (4,5/9 credits) and practice classes (4,5/9 credits). The English itinerary of the course implies that all practice classes (4,5 credits) will be given in English, and that 0,8 out of the 4,5 credits belonging to theory classes will be given in English. Students enrolled in the English itinerary must complete 4,5 credits of practice classes and 0,8 credits of theory classes, the remaining credits of theory classes (3,7) will be given in Spanish. This bilingual programme is offered for theory and practice classes in medium and small groups, respectively



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INTENDED LEARNING OUTCOMES

- CE44 Knowledge of parasitic diseases for relating to veterinary practices
- CE45 Knowledge of zoonoses and its implication on public wellbeing
- CE46 knowledge of ictopathology and its application

OBJECTIVES

To understand the basic principles of parasitic diseases, highlighting characteristic and differential issues of this type of pathological processes.

To know the main parasitic diseases in veterinary medicine, attending epidemiological, pathogenic, clinical, diagnostic and therapeutic aspects

To know the main parasite-borne zoonotic diseases, emphasising epidemiological aspects and control strategies.

To learn and gain skills in the most frequently diagnostic techniques used for parasitological diagnosis and to identify different parasite forms such as eggs, oocysts or larval stages of diagnostic importance.

To acquire knowledge in conceptual and methodological basis in order to set up control strategies for parasitic diseases.

The following transversal competencies and specific objectives recommended by the World Organisation for Animal Health are developed and taught during the course:

COMPETENCE 1: Epidemiology

COMPETENCE 2: Cross-border animal diseases

COMPETENCE 3: Zoonoses

COMPETENCE 4: Emerging and re-emerging diseases

COMPETENCE 5: Food hygiene

COMPETENCE 6: Veterinary products

CONTENT

1. Theory contents

I. INTRODUCTION

- Basic concepts of parasitic pathology
- Diagnosis and treatment of parasitic diseases
- Economical assessment of parasitic diseases. Main parasitic diseases
- Research in Parasitic diseases. Main lines and projects

II. PROTOZOAN DISEASES

- Leishmaniasis
- Flagellate protozoan diseases
- Coccidiosis
- Blood parasites: babesiosis and theileriosis

III. HELMINTH DISEASES

- Trematodosis : Fasciolosis and dicroceliosis
- Intestinal tapeworms
- Cysticercosis, coenurosis and hydatidosis
- Gastrointestinal strongylidosis
- Lungworms
- Ascariosis
- Heartworm disease
- Trichinellosis
- Other roundworm diseases



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IV. ARTHROPOD DISEASES

- Tick-borne disease
- Mite-borne disease: mange
- Myiasis
- Other arthropods diseases

V. OTHER PARASITIC DISEASES

- Parasitic diseases of fish
- Parasitic diseases of bees
- Parasitic diseases of laboratory animals

2. Practical contents

1. Laboratory techniques
 - 1.1. Parasitological techniques
 - A) Coprological
 - B) Haematological
 - C) Cutaneous
 - D) Post-mortem
 - 1.3. Immunological techniques
 - 1.4. Biomolecular techniques
2. Parasitic disease diagnosis
 - 2.1. In ruminants
 - 2.2. In pigs
 - 2.3. In equines
 - 2.4. In pets
 - 2.5. In poultry & others
3. Clinical case studies
 - 3.1. Study of clinical cases based on parasitic diseases
 - 3.2. Bibliographical reviews of parasitic diseases
 - 3.3. Oral presentation and discussion

SUSTAINABLE DEVELOPMENT GOALS RELATED TO THE CONTENT

Good health and well-being
 Gender equality
 Responsible consumption and production
 Life on land

METHODOLOGY

General clarifications on the methodology (optional)

Theory classes

Theory session of 50 minutes, with power point presentations.

Practical sessions

Attendance is compulsory (minimum 85%)

Performed in the laboratory of Parasitic Diseases of the Animal Health building.

Students will use a Practices Guide prepared by the Professors of the course.

At the end of the first two weeks of practical sessions the students must fill in an online questionnaire to evaluate and assess the acquired knowledge.



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Gamification activities will be developed to facilitate the learning process.

Methodological adaptations for part-time students and students with disabilities and special educational needs

SPECIAL ATTENTION WILL BE PROVIDED TO PART-TIME STUDENTS. SPECIFIC ADAPTATIONS WILL BE PREPARED IN EACH CASE, WITH ATTENTION TO SPECIAL EDUCATIONAL NEEDS

Face-to-face activities

Activity	Large group	Medium group	Small group	Total
Assessment activities	5	-	-	5
Case study	-	-	10	10
Group presentation	-	-	5	5
Lab practice	-	-	25	25
Lectures	32	8	-	40
Projects	-	-	5	5
Total hours:	37	8	45	90

Off-site activities

Activity	Total
Group work	20
Information search	20
Self-study	95
Total hours	135

WORK MATERIALS FOR STUDENTS

Lessons summary
Oral presentations
Placement booklet
References

Clarifications

Students will be provided with the materials throughout the course. Materials will also be available on the E-learning platform.

Resources available in the virtual classroom (Moodle)

Schemes of each theme, including image gallery

Practices Protocol

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Questionnaires online for each module of practices

The students will complete the questionnaires at the end of the practice, it will be available for a limited time

EVALUATION

Intended learning	Case study/clinical case discussion/scientific work discussion	Exams	Laboratory Practice	Problem solving	Project
CE44	X	X	X	X	X
CE45	X	X	X	X	X
CE46	X	X	X	X	X
Total (100%)	10%	55%	15%	10%	10%
Minimum grade	5	5	5	5	5

(*)Minimum mark (out of 10) needed for the assessment tool to be weighted in the course final mark. In any case, final mark must be 5,0 or higher to pass the course.

Method of assessment of attendance:

Up to 10% of a scale of 1 to 10, will be added to the final mark of the course, applicable once having obtained the minimum mark required to pass each of the instruments. A 45% attendance is required to apply this mark.

General clarifications on instruments for evaluation:

To pass the course in the final evaluation will require:

- Have more than 85% of attendance at practices.
 - Obtain the minimum required mark in exams and laboratory activities
- Problem solving includes online questionnaire.
Clinical cases will be included in laboratory activities.

Qualification through attendance sheets will apply if it exceeds 40% in theoretical sessions.

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Clarifications on the methodology for part-time students and students with disabilities and special educational needs:

SPECIAL ATTENTION WILL BE PROVIDED TO PART-TIME STUDENTS. SPECIFIC ADAPTATIONS WILL BE PREPARED IN EACH CASE, WITH ATTENTION TO SPECIAL EDUCATIONAL NEEDS.

Clarifications on the evaluation of the extraordinary call and extra-ordinary call for completion studies:

SAME CRITERIA PREVIOUSLY DESCRIBED

Qualifying criteria for obtaining honors:

Final qualification: 9 or higher.

BIBLIOGRAPHY

1. Basic Bibliography

In Spanish

- Bowman, D.D. (2004). Georgis' Parasitología Para Veterinarios. 8ª Ed. Elsevier. Madrid.
- Cordero Del Campillo y col. (1999). Parasitología Veterinaria. McGraw-Hill. Interamericana. Madrid.
- Frontera, E., Pérez, J.E., Alcaide, M. y Reina, D. (2009). Patología parasitaria porcina en imágenes. Servet Ed. Zaragoza.
- Fariñas, F.; Astorga, R. (2019). Zoonosis transmitidas por animales de compañía. Amazing books. Zaragoza.
- Garijo, M., Ortega, J., Cardells, J. y Gómez, T. (2012). Meril publicaciones. Barcelona.
- García Bocanegra, I.; Zafra, R. Enfermedades infectocontagiosas en rumiantes. (2019). Elsevier España.
- Hendrix, C.M. (1999). Diagnóstico Parasitológico Veterinario. Harcourt-Brace. España.
- Meana, A. y Rojo, F. (2010). 87 Q&A sobre parasitología equina. Servet editorial. Zaragoza.
- Meana, A. y Rojo, F. (2013). 60 Q&A sobre parasitología bovina. Servet editorial. Zaragoza.
- Mehlhorn, H.; Düwel, D. and Raether, W. (1992). Atlas De Parasitología Veterinaria. Grass Ed. Barcelona.
- Sánchez Acedo, C. (coord.) (2003). Enfermedades Parasitarias del ganado ovino y caprino. Ediciones Gea. Barcelona.
- Soulsby, E.J.L. (1987). Parasitología Y Enfermedades Parasitarias En Los Animales Domésticos. Interamericana. México.
- Quiroz Romero, H. (1984). Parasitología Y Enfermedades Parasitarias De Los Animales Domésticos. Limusa. México.
- Urquhart, G.M.; Armour, J.; Duncan, J.L.; Dunn, A.M. And Jennings, F.W. (2001). Parasitología Veterinaria. 2ª Ed. Acribia. Zaragoza.
- Valcárcel Sancho, F. (2009). Atlas de parasitología ovina. Ed Esteve. Barcelona.

In English

- Beugnet, F.; Halos, L.; Guillot, J. Textbook of clinical parasitology in dogs and cats. (2018). Servet ediciones.
- Bowman, D.D. (2009). Georgis' Parasitology for veterinarians. 9ª Ed. Saunders Elsevier. Missouri.
- Deplazes, P., Eckert, J., Mathis, A., vonSamson-Himmelstjerna, G. and Zahner, H. (2016). Parasitology in Veterinary Medicine. Wageningen Academic Publishers. Wageningen.
- Foreyt, W.J. (2001). Veterinary Parasitology. Reference Manual. Iowa State Press. Blackwell Publishing.
- Kassai, T. (1999). Veterinary Helminthology. Butterworths. Heinemann. Oxford.
- Kaufmann, J. (1996). Parasitic Infections Of Domestic Animals. A Diagnostic Manual. Birkhäuser Verlag. Basel, (2 Ejemplares).
- Mullen, G. and Durden, L. (2002). Medical and Veterinary Entomology. Academic Press. Amsterdam.
- Reinecke, R.K. (1983). Veterinary Helminthology. Butterworths Pub. Durban.
- Taylor, M.A., Coop, R.L. and Wall, R.L. (2016). Veterinary Parasitology. Blackwell Publishing. Oxford.

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- Wall, R. and Shearer, D. (2001). Veterinary Ectoparasites: Biology, pathology and control. 2nd ed. Blackwell Sciences LTD. Oxford.
- Zajac, A.M and Conboy, G.A. (2012). Veterinary Clinical Parasitology. Blackwell Publishing. Iowa.

2. Further reading

None

COORDINATION CRITERIA

Common learning outcomes
Tasks performance

SCHEDULE

Period	Assessment activities	Case study	Group presentation	Lab practice	Lectures	Projects
1# Fortnight	0,0	0,0	0,0	15,0	4,0	0,0
2# Fortnight	0,0	0,0	0,0	0,0	4,0	0,0
3# Fortnight	0,0	0,0	0,0	0,0	4,0	0,0
4# Fortnight	0,0	0,0	0,0	0,0	4,0	0,0
5# Fortnight	0,0	5,0	0,0	5,0	4,0	0,0
6# Fortnight	0,0	0,0	0,0	0,0	4,0	0,0
7# Fortnight	0,0	0,0	0,0	0,0	4,0	0,0
8# Fortnight	0,0	0,0	0,0	0,0	4,0	0,0
9# Fortnight	5,0	5,0	5,0	0,0	2,0	0,0
10# Fortnight	0,0	0,0	0,0	5,0	2,0	0,0
11# Fortnight	0,0	0,0	0,0	0,0	2,0	5,0
12# Fortnight	0,0	0,0	0,0	0,0	2,0	0,0
Total hours:	5,0	10,0	5,0	25,0	40,0	5,0

The methodological strategies and the evaluation system contemplated in this Course Description will be adapted according to the needs presented by students with disabilities and special educational needs in the cases that are required.