ipb
INSTITUTO POLITÉCNICO
DE BRAGANÇA

Course Unit	Production Animals and Equines			Field of study	Agricultural and Animal Production	
Bachelor in	Veterinary Nursing			School	School of Agriculture	
Academic Year	2022/2023	Year of study	3	Level	1-3	ECTS credits	6.0
Type	Semestral	Semester	1	Code	9085-671-3101-00-22	

| Workload (hours) | 162 | Contact hours | T | 30 | TP | - | PL | 13 | TC | 13 | S | 4 | E | - | OT | 20 | O | - |

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

| Name(s) of lecturer(s) | Fernando Jorge Ruivo Sousa, Hélder Miranda Pires Quintas |

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. Know the characteristics of indigenous / exotic breeds and relate them with the various farming systems.
2. Know how to implement best managing techniques for food and reproductive, for the sustainable production, involving the main problems and the economic and social aspects of the country and the world.
3. Be able to design, implement and manage various types of exploitation. Namely producing quality products of animal origin, at reduced costs.
4. Assistance of medical, health, breeding, surgery and other procedures.
5. Identificação of surgery equipments, instruments and materials. Sterilization techniques. Surgery assistance in farm animals.
6. Veterinary nursing in farm animals. Skin injuries management, banding, casting and splinting.
7. Identification of the main metabolic, nutritional and production diseases, their control and prevention. Biosafety.

Prerequisites

Before the course unit the learner is expected to be able to:
1. Biology, Chemistry and Mathematics
2. Physiology, Biochemistry, Veterinary Semiology, Pharmacology and Anesthesiology.
3. Animal Nutrition, Reproduction and Obstetrics and Veterinary Diagnostic Techniques

Course contents

Study of species of major economic interest: monogastric (pigs, rabbits, poultry), ruminants (dairy and meat cattle, goats and sheep) and other zootechnical species of economic interest (horses, bees). Medical nursing of farm animals (cattle, sheep, goats, pigs, rabbits and poultry) and horses. Nursing care (support for medical, reproductive and surgical treatments). Metabolic, nutritional and production diseases. Biosecurity in livestock production.

Course contents (extended version)

1. General Notions of Zootechny
2. Main National and Exotic breeds
3. Production Systems
4. Reproduction and Genetic Improvement: Reproductive programmes; Genetic improvement programmes
5. Animal housing; Temperature, Humidity, Ventilation and illumination; Equipment.
6. Feeding
    - Feed Requirements. Anatomy and physiology of the digestive system
    - Digestive use of food. Feeding techniques. Disorders related to nutrition.
7. Equine medical nursing
8. Bovine medical nursing
9. Sheep and goats medical nursing
10. Swine medical nursing
11. Medical nursing in other farm animals (i. e. rabbits and poultry).
12. Biosecurity in livestock production.

Recommended reading

1. KÜHNEMANN, Helmut, 2004. A criação biológica: Aves de capoeira, carneiros, cabras e abelhas. Colecção Euroagro. Publicações Europa- América, 208 pp
2. CARR, J. 2014. Guía práctica para el manejo del ganado porcino. John Carr. Zaragoza: Servet, D. L. ; PHILLIPS, 2003. Principios de producción bovina. Zaragoza. Editorial Acribia, . 350 pp
3. Holtgrew-bohling, K. , 2016. Large Animal Clinical Procedures for Veterinary Techicians. Mosby Elsevier - Health Sciences Division, 704 pp.
4. Constable, P. , Hinchcliff, K. , Done, S. and Gruenberg W. 2017. Veterinary Medicine : A textbook of the diseases of cattle, horses, sheep, pigs and goats. 11th edition. W B Saunders Co Ltd. 2278 pp
5. Dewulf, J. , Immerseel, F. 2020. Biosecurity in Animal Production and Veterinary Medicine : From principles to practice. CABI Publishing. 524 pp.

Teaching and learning methods

Lectures will be support by media and multimedia resources. Practical classes will engage direct working with animals. Everyone is expected to contribute actively to discussions. Non present hours will involve training in a working environment. Graduate students are expected to work largely on their own initiative although with the close support and supervision of a tutor.

Assessment methods

1. Test (50%) + Test (25%)+Restrict Exam (50%) - (Regular) (Final)
2. Global exam (100%) - (Student Worker) (Final)
3. Global exam (100%) - (Regular, Student Worker) (Supplementary, Special)

Language of instruction

Portuguese, with additional English support for foreign students.

Electronic validation

Fernando Jorge Ruivo Sousa, Hélder Miranda Pires Quintas	Álvaro Luís Pegado Lemos Mendonça	Hélder Miranda Pires Quintas	Ramiro Corujeira Valentim
02-12-2022	22-12-2022	22-12-2022	31-12-2022