INSTITUTO POLITÉCNICO DE BRAGANÇA

Course Unit	Swine Science			Field of study	Animal and Agricultural Productions		
Bachelor in	Zootechnical Engineering			School	School of Agriculture		
Academic Year	2022/2023	Year of study	3	Level	1-3	ECTS credits	6.0
Type	Semestral	Semester	2	Code	9129-312-3205-00-22		

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

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): Marieta Amélia Martins Carvalho

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. Know the specific system of traceability of food products of animal origin and its importance in food safety.
5. Knowing and applying the standards of knowledge on organic creation animal.
6. Know the various methods of recycling animal sewage.

Prerequisites

Before the course unit the learner is expected to be able to:
The students will have to know: Chemistry, Biochemistry and Microbiology.

Course contents

Great for the global production of pig. Main breeds. Pig farming in Portugal and in World. Production of meat.

Course contents (extended version)

1. Introduction.
2. The main national and international races.
3. Reproduction / Production.
   - Physiology and main ability.
   - Main production systems.
4. Animal housing.
   - Different types of animal housing.
   - Temperature, Humidity, Ventilation and illumination.
   - Equipment.
5. Feeding.
   - Anatomy and Physiology.
   - Digestive utilization of food.
   - Feed Requirements.
   - Feeding techniques.
   - . Disorders associated with nutrition.
6. Sanitary Prevention.
   - Supervision.
   - Isolation.
   - General standard rules for prophylaxis.
   - General norms of prophylaxis.
7. Farm Managing and planning.
8. Behaviour.
9. Organic production.
10. Industries related to meat, skin and hair.
11. Certification of quality products, PDO / PGI.
12. Environmental impact of producing meat.
13. National and UE legislation relating to the production of meat.

Recommended reading

1. KYRIAZAKIS, I. ; WHITTEMORE, C. T. , 2006. Whittemore's science and practice of pig production. Blackwell Publishing, Ltd, 685 pp.
2. STEVENSON, W. et al. ; 2012. Diseases of swine. 10 th Edittion. STEVENSON, W. et al. Editors. Willey Blackwell, 1008 pp.
3. FORCADA, F. ; BABOT, D. ; VIDAL, A. ; BUXADÉ, C. ; et al. , 2009. Ganado porcino Diseño de alojamientos e instalaciones “Bienestar y rentabilidad en la misma explotacion. Editorial Servet, 440 pp.
4. CARR, J. (2014). Guía práctica para el manejo del ganado porcino / John Carr. Zaragoza: Servet, D. L.
5. Apontamentos do docente (capítulos de teses, monografias, capítulos de livros).

Teaching and learning methods

Theoretical and practical lessons, using various multimedia equipment, laboratory and livestock from ESAB. The study should be continued, using the media available. The guidance track mentorship would allow the teaching and auxiliary students in the development of various activities related to curriculum unit.

Assessment methods

1. Continuous assessment: - (Regular, Student Worker) (Final)
   - Development Topics - 25% (Monograph and its presentation in class (25%; 1, 5 ECTS). The note must be >9, 5 points.)
   - Practical Work - 25% (Practical work including the resolution of exercices (25%; 1,5 ECTS). The note must be >9,5 points.)
   - Intermediate Written Test - 25% (Intermediate Written Test theory / practical (25%; 1, 5 ECTS). The note must be >9, 5 points.)
   - Final Written Exam - 25% (A written theory / practical (25%; 1, 25 ECTS). The note must be >9, 5 points.)
2. Continuous assessment: - (Student Worker) (Final, Supplementary, Special)
   - Final Written Exam - 100% (Global written exam: theoretically and practical (100%; 6, 0 ECTS).)
3. Resource evaluation: - (Regular, Student Worker) (Supplementary)

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Assessment methods

- Final Written Exam - 100% (Global written exam: theoretically and practical (100%; 6, 0 ECTS).)

4. Special evaluation: - (Regular, Student Worker) (Special)
   - Final Written Exam - 100% (Global written exam: theoretically and practical (100%; 6, 0 ECTS).)

Language of instruction

1. Portuguese, with additional English support for foreign students.
2. Spanish

Electronic validation

Marieta Amélia Martins Carvalho	Vasco Augusto Pilão Cadavez	Marieta Amélia Martins Carvalho	Ramiro Corujeira Valentim
14-12-2022	21-12-2022	21-12-2022	22-12-2022

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