Course Unit	Meat and Meat Products Technology			Field of study	Engineering and engineering trades		
Bachelor in	Food Engineering			School	School of Agriculture		
Academic Year	2022/2023	Year of study	3	Level	1-3	ECTS credits	6.0
Type	Semestral	Semester	1	Code	9087-641-3104-00-22		

Workload (hours)	162	Contact hours	T	TP	PL	TC	S	E	OT	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): Alfredo Jorge Costa Teixeira

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:
1. Recognise the different methods and procedures of meat industry;
2. Increase the interest in improving the use of protein from meat, through the proper use of various methods and procedures;
3. Develop expertise in all aspects of the industry production of meat and processed meat.

Prerequisites

Before the course unit the learner is expected to be able to:
1. Students should have knowledge of biology, biochemistry, microbiology of muscle and fat tissues
2. Have the knowledge of food technology and quality control and food safety.

Course contents

Slaughter procedure, carcass evaluation and classification. Carcass refrigerationCarcass quality: DFD and PSE. Rigor mortis, rigor and thawing of criochoque. Meat preservation. Processed meats (cured products and products processed by heat). Diagrams of manufacture.

Course contents (extended version)

1. Theory lessons World meat production. Importance and meat consumption
2. Fundamental unit of meat study. Carcass fabrication
3. Carcass quality. Color, pH and instrumental hardnes
4. Muscle function and post-mortem changes. Rigor Mortis. Cold shortness. DFD and PSE meat
5. Meat preservation. Refrigeration and frozen. Dehydration. Irradiation. Chemical preservation
6. Cured meat and its procedures
7. Sausages classification
8. Practises Practice 1. Security rules and equipment at slaughter house. Techniques of use of knives
9. Practise 2. Slaughter procedures and carcass evaluation. Jointing procedures. Carcass dissection
10. Practise 3. Salting meta procedures
11. Practise 4. pH and aw evaluations
12. Practise 5. Sausage and pâté fabrication
13. Practise 6. Ham cure. Visit to a industrial unit
14. Practise 7. Clorure determination
15. Practise 8. TBARS determination

Recommended reading

1. Savell, J. W. and Smith, G. C. , 1998. Meat Science.
2. Warriss, P. D. , 2000. Meat science. An introductory text. CABI Publishing, Oxford, Reino Unido, 310 pp.
3. Swatland, H. J. , 2000. Meat cuts and muscle foods. Nottingham, University Press. Vários, 2005.
4. Vários, 2005. Estandarización de las metodologias para evaluar la calidad del producto (animal vivo, canal, carne y grasa) en los rumiantes. Monografia INIA: Série Ganadera, nº3.

Teaching and learning methods

The teaching of theoretical and practical. Lessons from the field, laboratory, films, slides and study tours. Availability of working papers on e-learning platform. No presence in the hours, the students will perform a work of quality analysis of various food products. In the end, the student must produce a report.

Assessment methods

- 1 Practical work – 50% 2. Final closed exam – 50% - (Regular, Student Worker) (Final, Supplementary, Special)

Language of instruction

Portuguese

Electronic validation

Alfredo Jorge Costa Teixeira	Álvaro Luís Pegado Lemos Mendonça	Elsa Cristina Dantas Ramalhosa	Ramiro Corujeira Valentim
12-12-2022	22-12-2022	27-12-2022	31-12-2022