

## Course Unit: 15728 – Quality Control Food of Animal Origin

Year 3 Semester 5 ISCED Code: 721 ECTS: 4,0

Type of Course Unit: Compulsory Delivery Mode: Face-to-face Language of Instruction: Portuguese

COURSE COORDINATOR: Silvina dos Anjos Pimena Marques Maia Ferro Palma

### HOURS OF WORK

TOTAL HOURS	Contact Hours								Hours in autonomous work
	Theory	Theory and practice	Practical and laboratory work	Field work	Seminar	Internship	Tutorial guidance	Other	
100	15		30						55

Prerequisites (if applicable): Not applicable

### LEARNING OUTCOMES (knowledge, skills and competence)

The student must know the main indexes of evaluation and control the subsector dairy products meat and fish in Portugal, highlighting the importance of quality control and traceability of dairy products meat and fish. Being able to apply a verification procedure in milk and dairy products, meat products and fish products. The student must know the main indexes of evaluation and control of eggs.

### CONTENTS

Sampling and laboratory methodologies used in food analysis.

Quality of meat, the main factors that determine.

Fish, biochemical processes of alteration, indices of freshness.

Eggs, classification and quality control.

Milk composition and physico-chemical characteristics of milk. Criteria for payment of milk to the producer. Characterization of the different types of milk. Food value of milk and dairy products. Quality control of milk for consumption in nature (pasteurised and UHT) and of the main dairy products (cream, butter, cheese, powdered milk and fermented milk).

### DEMONSTRATION OF THE CONTENTS COHERENCE WITH THE COURSE UNIT'S LEARNING OUTCOMES

Will be addressed the important concepts, objectives and guidelines of the sampling and experimental design. The practice allows the student to develop practical laboratory work applied to food substances, considering, among other aspects related to the selection of equipment applied to different analytical techniques. The student will be able to, in the future, deepen and upgrade skills in these areas.

### TEACHING METHODOLOGIES

Lectures, laboratory practices, reports and visits to specialty industries, research papers.

### DEMONSTRATION OF THE COHERENCE BETWEEN THE TEACHING METHODOLOGIES AND THE LEARNING OUTCOMES

Theoretical and practical lessons and visits to specialty industries, complete the different sections of the programme. In theoretical classes are exposed to the concepts, fundamentals, methods and standards to understand and apply in laboratory analysis in practical lessons.

### EVALUATION METHODS

75% of practical lessons ensure the frequency practice syllabus  
The frequency of practical lessons when obtained is valid for 2 years.  
Theoretical-practical examination for admission to the theory test  
Midterm Quizzes or final quiz and Resource quiz.  
Final grade = 50%Theoretical + 50% theoretical-practical

## MAIN BIBLIOGRAPHY

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- C. Alais (1985) Cincia de la leche. Principios de tcnica lechera". Verso espanhola por D. Antnio la Casa Godina. Editorial Revert, S.A. Barcelona, Espanha.
- Connel, J.J.; (1988) Controllo de la calidad del pescado, Editorial Acribia, Zaragoza
- G. Bylund (1995) Dairy processing hand book. Tetra Pack Processing Systems AB, Lund, Sweden.
- Genot,L. (2003),Congelacin y Calidad de la Carne, Editorial Acribia
- Leo M.L. Nollet, Fidel Toldra (2009) Handbook of dairy foods analysis. Leo M.L. Nollet, Fidel Toldra. Taylor & Francis Group, LLC & CRC Press. L., Boca Raton, USA.
- P. Walstra, Pieter Walstra, Jan T. M. Wouters, Tom J. Geurts (2006) Dairy science and technology. Taylor & Francis Group, LLC & CRC Press. L., Boca Raton, USA.
- Pearson,D(1986)Tcnicas de laboratrio para el anlisis de alimentos, Ed. Acribia
- Steiner,G.,Schnepl,F.M.; Matissek,R.,(2002)Analises de los Alimentos.Ed. Acribia
- Victor R. Preedy, Ronald Ross

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