



Universitat de Lleida

DEGREE CURRICULUM
**SLICING AND PACKAGING.
FUNDAMENTALS OF DESIGN IN
MEAT PRODUCTION PLANTS.**

Coordination: MOLINO GAHETE, FRANCISCO

Academic year 2021-22

Subject's general information

Subject name	SLICING AND PACKAGING. FUNDAMENTALS OF DESIGN IN MEAT PRODUCTION PLANTS.				
Code	13113				
Semester	2nd Q(SEMESTER) CONTINUED EVALUATION				
Typology	Degree	Course	Character	Modality	
	Master's Degree in Agronomic Engineering (inter) (R2019)	2	OPTIONAL	Attendance-based	
	Master's Degree in Management and Innovation in the Food Industry	1	COMPULSORY	Attendance-based	
Course number of credits (ECTS)	2.5				
Type of activity, credits, and groups	Activity type	PRACAMP	PRALAB	PRAULA	TEORIA
	Number of credits	0.4	0.2	1.2	0.7
	Number of groups	1	1	1	1
Coordination	MOLINO GAHETE, FRANCISCO				
Department	FOOD TECHNOLOGY				
Important information on data processing	Consult this link for more information.				
Language	Castellà: 80 Anglès: 20				

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
MOLINO GAHETE, FRANCISCO	francisco.molino@udl.cat	2,1	
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Subject's extra information

This subject forms part of Module V. DEVELOPMENT TECHNOLOGY OF MEAT PRODUCTS. The main objective of this subject is to study industrial systems for slicing, vacuum packing and modified atmosphere packing. Particular emphasis needs to be placed on the special conditions that, within a meat product production plant, the slicing and packaging area requires in terms of local hygiene, machinery, utensils and staff.

Learning objectives

This subject forms part of Module V. DEVELOPMENT TECHNOLOGY OF MEAT PRODUCTS. The main objective of this subject is to study industrial systems for slicing, vacuum packing and modified atmosphere packing. Particular emphasis is placed on the special conditions that, within a meat product production plant, the slicing and packaging area requires in terms of local hygiene, machinery, utensils and staff.

Knowledge objectives

- To know how to apply knowledge of modern slicing equipment and packaging systems to the design and organisation of a clean room for slicing/packaging meat and meat products. - To know about the design basics of production plants for meat products, sliced meat products and convenience foods.

Competences

General competences:

The following transversal competences will be guaranteed, as a minimum:

CG3. Teamwork among the personnel involved in AI production: production, quality, sales ...

CG4. Creativity applied to product and process innovation CG5. Initiative and entrepreneurial spirit

CG7. Oral and written expression

CG8. Time management

CG9. Ethical commitment

CG10. Information management capacity

Specific skills Students of the GIIA master's degree released after completing their studies will have acquired the following knowledge and skills:

CE2. Know how to control and optimize processes and products

CE5. Know the standardization and food legislation

CE9. Know the operation, management and control of the organization of companies

CE14. Problem resolution

Within the specific field of meat products

CE15. Know how to make and preserve cooked meat products

CE16. Know how to plan and prepare technical studies

CE17. Know how to plan and develop R&D work

CE18. Know how to develop new processes and products

Subject contents

Theory syllabus

Topic 1. Slicing systems. Form, fill and seal machinery.

Topic 2. Packaging and preservation of fresh meat and meat products: Innovations and trends.

Topic 3. Quality, commercialisation and shelf life of fresh meat and meat products. Innovation: Antioxidant and antimicrobial active packaging.

Topic 4. Clean rooms for slicing meat and meat products. Hygiene of surfaces and staff.

Topic 5. Plant design. Definition of plant design issues. Temporary stages. Nature of plant design issues.

Topic 6. Project definitions. Project morphology. Development of each document. Report and appendices. Plans. Specifications. Budget. Project execution stages.

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Topic 7. Gases for sliced meat product packaging. Form, fill and seal machinery.

Practical activities

Practical work 1. Microbial analysis of surfaces and the atmosphere. Microbe counts of surfaces and the atmosphere.

Practical work 2. Analysis of a project for a convenience food production plant and a clean room for slicing meat and meat products.

Group work. Delivery of a document. Oral presentation of the work. Plenary discussion of presented works.

Bibliography

BRODY, A.L. Controlled modified atmosphere vacuum packaging of foods. Tramball. Connecticut. USA (1989).

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GRIFFING, R.C. Principles of package development. Ed Van Nostrand Reinhold Co, NY (1985).

HANLON, J.F. Handbook of package engineering. Ed Technomic Publ. Co. Inc., Lancaster, PA (1992).

HOTCHKISS, J. Food and packaging interactions. Ed American Chemical Society, Washington DC (1998).

JENKINS, W.A. y HARRINGTON, J.P. Packaging foods with plastics. Technomic Publishing Co. Inc. Lancaster P.A. USA (1991).

KADOYA, T. Food Packaging. Academic Press Inc, New York (1990).

LEVY, G. Packaging in the environment. Ed Chapman-Hall, NY (1992).

PAINE, F. Y PAINE, H. Manual de envasado de alimentos. Ed Acribia, Zaragoza (1994).

ROBERTSON, G.L. Food packaging: principles and practice. Ed Marcel Dekker Inc, NY (1992).

WATSON, D.H. Revisión sobre ciencia y tecnología de los alimentos. Vol. II. Migración de sustancias desde el envase al alimento. Ed Acribia, Zaragoza (1995)