General information

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Academic subject	**Food Technology**
Degree course	Safety and Health of Food of Animal Origin
Academic Year	2021/22
European Credit Transfer and Accumulation System (ECTS)	6
Language	Italian
Academic calendar (starting and ending date)	1st semester
Attendance	Not mandatory

Professor/ Lecturer	
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Department and address	Veterinary Medicine Campus – Valenzano (BA)
Virtual headquarters	
Tutoring (time and day)	From Monday to Friday by e-mail appointment

Syllabus	
Learning Objectives	The course aims to transfer to the students the principles and applications of the traditional and innovative technologies in the field of food preservation and processing. A further objective is to transfer problems and solutions for the analytical evaluation of the quality of raw matters and finished products, also by discussing some case studies. .
Course prerequisites	Organic Chemistry and Microbiology
Contents	Technology of cured meat products and fish products. Technology of Fermented milk, cream and butter. Dairy technology. Definitions and objectives of process and product innovation. Mild technologies: membrane technology, ultrasounds, irradiation, microwave, extraction using supercritical fluids, hyperbaric sterilization, natural antimicrobials. Product innovation: functional and novel foods. Innovation in the dairy industry. Strategies for the control of non-pathogenic spoilage microrganisms; innovative technologies for the treatment of dairy wastes. Innovations in the production technology of stretched and non-stretched curd cheeses; lactose-free and fortified cheeses; functional cheeses; cheese analogues for vegan people. Practical classes: HPLC applications with for the characterization of cheeses and meat products. Sensory analysis techniques applied to cheese; Electrophoretic techniques for proteomics in dairy and meat products.
Books and bibliography	Zambonelli, Coloretti, Grazia. Tecnologia dei salumi. Edagricole; Mucchetti-Neviani. Tecnologia e Microbiologia Lattiero_casearia, Tecniche Nuove; Lectures notes; slides of the lessons
Additional materials	

Work schedule	

Total 85	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
Hours			
150	60	25	65
ECTS			
6	5	1	
Teaching strategy		Lectures are held with the aid of PowerPoint presentations that are made available to the student in pdf format. Practical classes are held in the laboratories of the Department of Veterinary and/or of the Department of Soil, Plant and Food Sciences. Each student will be trained to perform personally the analyses.	
Expected learning outcomes			
Knowledge and understanding on:		o Knowledge of the processing technologies of some dairy, meat and fish products o Understanding the basic criterion for the evaluation of the technological, compositional and sensory quality of food products of animal origin o Knowledge about process and product innovation in the food industry	
Applying knowledge and understanding on:		o Understanding the specific technologies of pasta filata cheeses o Understanding the variables at the basis of the quality of cheese and cured meat products o Application of analytical techniques for evaluating the quality of cheese and cured meat products	

Soft skills		• Making informed judgments and choices
		  o judging and describing a process flow in the food industry (products of animal origin)
		  o judging and describing the expected quality obtainable from the application of the processing techniques to milk and meat
		  o knowing the principles of the chemical and sensory analyses applied to cheese
		• Communicating knowledge and understanding
		  o Describing the relationships between processing technologies and food quality
		  o Communicating the basic procedures for the evaluation of food products qualiuty
		• Capacities to continue learning
		  o Capacity to proceed autonomously in deepening the innovations of processes and products	

Assessment and feedback	
Methods of assessment	Oral exam (at least three questions regarding the arguments included in the programme)

Evaluation criteria	• Knowledge and understanding
	  o Relevancy and certainty of the information given while answering to the questions raised by the teacher
	• Applying knowledge and understanding
	  o Level of technical deepening of the answers
	• Autonomy of judgment
	  o Capacity of making connections among different arguments
	• Communication skills
	  o Clarity and linguistic fluency

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	• Capacities to continue learning 　　o Hints and personal observations while discussing a case study
Criteria for assessment and attribution of the final mark	
Additional information	