

General information	
Academic subject	<b>FOOD SAFETY 1</b>
Degree course	Foods of animal origin safety and health – (LM86)
Academic Year	2022/2023 – II year
European Credit Transfer and Accumulation System (ECTS)	6 (5 + 1E)
Language	ITALIAN
Academic calendar (starting and ending date)	I semester
Attendance	Not mandatory

Professor/ Lecturer	
Name and Surname	ANGELA DI PINTO – ANGELA DAMBROSIO
E-mail	<a href="mailto:angela.dipinto@uniba.it">angela.dipinto@uniba.it</a> – <a href="mailto:angela.dambrosio@uniba.it">angela.dambrosio@uniba.it</a>
Telephone	Tel. 0805443878 - 0805443849
Department and address	Campus of Veterinary Medicine, S.P. 62 to Casamassima km 3, 70010 Valenzano (Ba)
Virtual headquarters	Microsoft Teams platform (cod.: 54m83w9) - Request for an appointment to be agreed in advance via email
Tutoring (time and day)	Tuesday: 10:30 - 12:30 - Thursday: 14:30 - 16:30 - Request for an appointment to be agreed in advance via email

Syllabus	
<b>Learning Objectives</b>	The course aims to provide scientific knowledge relating to health and hygiene requirements, hazards and methods of prevention and management thereof within milk, dairy product, fish and bivalve mollusks supply chains. The course aims to analyze the general principles and requirements of European and national legislation on hygiene and safety in specific sectors and schedules educational visits to food production companies in order to transfer practical knowledge relating to the prevention and management of hazards, and to sanitation in animal origin supply chains of interest.
<b>Course prerequisites</b>	The student should have knowledge and skills relating to microbiology and the hygiene measures practiced on livestock farms.
<b>Contents</b>	<p><b>Introduction.</b> EU Food Laws: general principles and requirements concerning food safety. Risk analysis methodologies according to the principles of the Codex Alimentarius. Pre-requisite programs, Good Hygiene Practices (<i>GHP</i>) and <i>Good Manufacturing Practices</i> (<i>GMP</i>). Hazard Analysis and Critical Control Point (<i>HACCP</i>) system and guidelines for its application.</p> <p><b>Milk and dairy products.</b> European legislation for milk and milk products. Safety requirements for raw milk production. Hygiene on milk production holdings. Criteria for raw milk requirements concerning dairy products. Wrapping and packaging. Requirements for heat treatment. Labeling and identification marking. Milk and Milk Products: processing techniques. Risk assessment and management of milk and dairy products.</p> <p><b>Fishery products.</b> European legislation for fish and fishery products. Sanitation standards for fishery products. Requirements for fresh fishery products. Requirements for frozen products. Requirements for mechanically separated fishery products. Processing technologies and requirements for processed fishery products.</p>

	Wrapping and packing. Storage and transport. Labeling. <b>Bivalve molluscs.</b> European legislation for bivalve molluscs. Hygiene requirements applicable to production and harvest: recalls. General requirements for placing on the market. Sanitary rules for live bivalve molluscs. Transformation technologies. Wrapping and packing. Identification and labeling marking.
<b>Books and bibliography</b>	Antonello Paparella, Maria Schirone, Pierina Visciano. Igiene nei processi alimentari. Progettazione della sicurezza degli alimenti. Hoepli, 2023. Cenci Goga – Ispezione e controllo degli alimenti. Point Veterinaire Italie EU Food Laws
<b>Additional materials</b>	Lecture notes are recommended

<b>Work schedule</b>			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
<b>Hours</b>			
<b>150</b>	<b>40</b>	<b>20</b>	<b>90</b>
<b>ECTS</b>			
<b>6</b>	<b>5</b>	<b>1</b>	
<b>Teaching strategy</b>	The teaching strategy involves lectures held in the classroom with the aid of multimedia devices such as PCs, projectors, internet connections that allow viewing of PowerPoint files and educational videos/films. Practical activities include educational visits to food companies operating in the sectors of interest, classroom exercises, case study analyses and laboratory exercises at the Food Safety section facilities. Students are divided into groups and followed individually, when performing the laboratory tests required on the course, by the course leader and collaborators. Considering the average number of students enrolled on the course, this will require at least 3 shifts for each laboratory exercise.		
<b>Expected learning outcomes</b>			
<b>Knowledge and understanding on:</b>	<ul style="list-style-type: none"> <li>○ Students need to know and understand the hygiene and safety requirements for milk and milk products, fish and bivalve molluscs, the hazards and methods of prevention and management in the context of the animal origin supply chains of interest. Students need to know and understand the European and national legislative provisions on food safety.</li> </ul>		
<b>Applying knowledge and understanding on:</b>	<ul style="list-style-type: none"> <li>○ Students need to apply their knowledge of and understand safety and hygiene issues, prevention and management methods within the specific supply chains of animal origin and must know the main European and national legislative provisions on the safety of milk and milk products, fish and bivalve molluscs.</li> </ul>		
<b>Soft skills</b>	<ul style="list-style-type: none"> <li>• <i>Making informed judgments and choices</i> <ul style="list-style-type: none"> <li>○ Students need to be able to acquire and interpret information and draw autonomous conclusions on issues related to food hygiene and safety, independently formulate a correct assessment of the critical issues of production processes and identify methods to ensure their management. Students need to make autonomous analyses concerning food safety.</li> </ul> </li> <li>• <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> <li>○ Students need to be able to effectively discuss the main issues of food hygiene and safety within a multidisciplinary working group.</li> </ul> </li> </ul>		



	<ul style="list-style-type: none"> <li>• <i>Capacities to continue learning</i> <ul style="list-style-type: none"> <li>○ Students need to acquire sufficient learning skills to deal with subsequent in-depth studies and / or updates on food hygiene and safety issues.</li> </ul> </li> </ul>
<b>Assessment and feedback</b>	
Methods of assessment	Verification of learning, at the end of the course, consists in an oral discussion of the topics of the course aimed at ascertaining the achievement of the main educational objectives of the course: (1) knowing the terminology used in food safety and being able to express oneself correctly; (2) know the European and national legislation on food safety and the related sanitary parameters set by the legislation; (3) be able to analyze the criticalities of production processes and to correctly identify the criticalities of a process and the methods to ensure their management; (4) know the basic principles relating to food safety, traceability and labeling of food products.
Evaluation criteria	<ul style="list-style-type: none"> <li>• <i>Knowledge and understanding</i> <ul style="list-style-type: none"> <li>○ Knowledge and understanding the basic concepts of food hygiene and safety explained in the course.</li> </ul> </li> <li>• <i>Applying knowledge and understanding</i> <ul style="list-style-type: none"> <li>○ Applying knowledge and understanding of the basic concepts for management of food hygiene and safety.</li> </ul> </li> <li>• <i>Autonomy of judgment</i> <ul style="list-style-type: none"> <li>○ Being able to formulate an opinion independently</li> </ul> </li> <li>• <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> <li>○ Being able to clearly explain the main topics discussed during the course</li> </ul> </li> <li>• <i>Communication skills</i> <ul style="list-style-type: none"> <li>○ Being able to discuss the main issues of food hygiene and safety within a multidisciplinary working group</li> </ul> </li> <li>• <i>Capacities to continue learning</i> <ul style="list-style-type: none"> <li>○ Capacities to continue learning providing access to advanced courses and training periods</li> </ul> </li> </ul>
Criteria for assessment and attribution of the final mark	Assessment and attribution of the final mark is graded on a scale from 0 to 30. The minimum vote for the oral exam is 18/30. The maximal grade is reached if the student proves a knowledge and a thorough understanding of the course content. The maximal grade with honours is reserved to the students who show special independence and excellence.
<b>Additional information</b>	