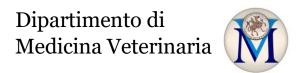


General information			
Academic subject	Fish and fishe	Fish and fishery products Hygiene and Safety Control	
Degree course	Veterinary M	Veterinary Medicine	
Academic Year	2021/2022	2021/2022	
European Credit Transfer ar	nd Accumulation Syst	em (ECTS) 3	
Language	italian	italian	
Academic calendar (starting and ending date)		II Bimestre	
Attendance	Mandatory		

Professor/ Lecturer		
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E-mail	giuseppina.tantillo@uniba.it	
Telephone	080 5443853	
Department and address	Veterinary Medicine Campus – Valenzano (BA)	
Virtual headquarters	Department of Veterinary Medicine Sector " Food Safety"	
Tutoring (time and day)	Tuesday: 13.00-14.00 hours Thursday: 13.00-14.00 hours	
	(upon request by email)	

Syllabus		
Learning Objectives	The course provides the essential and fundamental knowledge elements to assess and manage the hygienic and safety of the fishery product chain, through knowledge of risk and hazard management and sector regulations.	
Course prerequisites	The student must be familiar with EC Reg. 852/04 on production hygiene and have acquired the principles of the HACCP system; he/she must have acquired knowledge of food microbiology and environmental toxicology. EU legislation on traceability of fish and fish products,	
Contents	Area: Food Safety and Quality and professional Training	
	Fishing techniques and quality of fishery products. Taxonomy of fishery products and taxonomic keys for the recognition of the main commercialized fish species. Techniques of conservation and processing of fishery products and safety control of production. Additives in fishery products. Food laws and standards, national and international legislation concerning the fish sector, EU legislation on traceability of fish and fish products, labelling for product traceability and labelling requirements. Techniques for the evaluation of the freshness of fishery products according to EC Reg. 2406/96. Quality analysis of canned, frozen, cured and pickled fish products. The parasites of edible fish, inspection techniques. EC Reg 2074/2005. Chemical-physical techniques for the determination of the freshness of fishery products. Mackerel poisoning, histamine and biogenic amine control according to Reg.CE 1441/07. Fish actively and passively toxic and veterinary control. Inspection of fishery products and evaluation of freshness. Microbiology of fishery products. Food Fraud in the Fisheries Sector and inspection requirements. Contaminants in the Fishery supply chain: heavy metals, pesticides, PAHs, PCBs, according to EC Reg. 1881/06.  Application of HACCP concept in surveillance and quality assurance programmes for raw, frozen, canned, cured, irradiated, cooked and chilled, modified atmosphere packaged and freeze dried products	
Books and bibliography	PALESE L. A. "Il controllo sanitario e qualitativo dei prodotti alimentari della pesca"	





	Ed. Piccin TIECCO G. "Igiene tecnologia degli alimenti di o.a." Ed. Edagricole	
Additional materials	Lesson Notes and slides projected in class.	

Work schedu	ıle		T	
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours	
Hours				
75	26	25	24	
ECTS				
3	2	1		
Teaching stra	ategy	The theoretical part of the course takes place in a classroom edmultimedia tools such as PC, projector, internet connection and and power point slides will be shown.  The practical exercises are carried out both at the chemistry an laboratories of the Food Safety Unit of DiMEV and at Apulian m processing companies. During these exercises, the students, digroups (maximum 10 people), are supervised by the holder of the collaborators or external personnel in the case of field exercises. Learning tests are provided during the course.	d educational films  d food microbiology harineries and/or fish wided into small the course, by	
	rning outcomes			
on:	and understanding	<ul> <li>acquire the ability to recognise the main fish special indicate their common and scientific names</li> <li>assessing the freshness of fishery products by approvided by the legislation in force</li> <li>acquire the inspection and analytical technique hygienic-sanitary safety of fresh and processed fisknow the fishery regulations at EU and national legislations.</li> </ul>	oplying the techniques les for assessing the hery products	
Applying knowledge and understanding on:		<ul> <li>to control the marketing of fish products at every stage of the chain</li> <li>to carry out inspection of fresh and processed products, according to the mandatory regulations</li> </ul>		
Soft skills		<ul> <li>Making informed judgments and choices</li> <li>organize the audit system for the control of the fisheries sector</li> <li>assess regulatory compliance in fisheries companies</li> <li>assess yearly and sanitary frauds</li> </ul>		
		<ul> <li>Communicating knowledge and understanding         <ul> <li>carry out group exercise activities to combine the learning to communicate in appropriate language</li> <li>interact and communicate with technical staffindustry</li> <li>organize presentations in power point or other resystems using language properties and mastery terminology</li> </ul> </li> <li>Capacities to continue learning         <ul> <li>develop the desire for competence, beyond the desire for competence.</li> </ul> </li> </ul>	f in fishery products media communication of technical-scientific	



**Additional information** 

## Dipartimento di Medicina Veterinaria

	motivational factor to succeed in the profession.	
	<ul> <li>introduce learning topics indicated by the student</li> </ul>	
Assessment and feedback		
Methods of assessment	The verification of the acquired knowledge is verified by a practical test of species recognitic together with an inspection assessment of the freshness status of the product, and an otest on subjects of the programme.	
Evaluation criteria	<ul> <li>Knowledge and understanding         <ul> <li>The student must demonstrate knowledge of inspection methods for the recognition of species, freshness of the catch, etc.</li> <li>The student must know the inspection behaviour in case of seafood fraud.</li> <li>The student must recognise the risks and hazards of the fish industry.</li> </ul> </li> <li>Applying knowledge and understanding         <ul> <li>The student should be able to carry out an audit of standard operating procedures in fishing companies.</li> </ul> </li> <li>Autonomy of judgment         <ul> <li>The student must be able to orientate himself/herself in the application of the FISH and fishery products regulations.</li> </ul> </li> <li>Communicating knowledge and understanding         <ul> <li>The student must demonstrate language skills and mastery of mandatory legislation.</li> </ul> </li> <li>Capacities to continue learning         <ul> <li>The student demonstrates ability to learn and an interest in the discipline with depth scientific studies of topics not specifically included in the teaching</li> </ul> </li> </ul>	
Criteria for assessment and attribution of the final mark	programme.  The examination is considered passed when the mark is greater than or equal to 18.  The final assessment will be based on:	
	Objective tests: well tailored to the objectives to be checked and make the judgement absolutely independent of the subjectivity of the teacher. independent of the subjectivity of the teacher. The objectivity consists in the possibility of predetermining the "accuracy" of the answers.	
	Non-objective tests: they provide open-ended stimuli and answers and allow the evaluation of complex mental processes, such as the ability to communicate one's own thoughts, the ability to construct a logical discourse and to grasp the essential advantage of the state of the st	

motivational factor to succeed in the profession.

elements of an argument, the critical sense and the ability to find original solutions.