

Quality and Safety of Animal Food Products [161]

COURSE OUTLINE

(1) GENERAL

SCHOOL	ANIMAL BIOSCIENCES		
ACADEMIC UNIT	DEPARTMENT OF ANIMAL SCIENCE		
LEVEL OF STUDIES	Undergraduate [Required]		
COURSE CODE	161	SEMESTER	6 th
COURSE TITLE	QUALITY AND SAFETY OF ANIMAL FOOD PRODUCTS		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	CREDITS
Lectures		4	4
TOTAL		4	4
COURSE TYPE	Scientific area		
PREREQUISITE COURSES:	-		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK		
IS THE COURSE OFFERED TO ERASMUS STUDENTS:	Yes (in English)		
COURSE WEBSITE (URL):	https://mediasrv.aua.gr/eclass/courses/EZPY188/		
TEACHING STAFF:	Athanasios Gelasakis, Nikolaos Chorianopoulos, Panagiotis Simitzis, Efstathios Panagou		

(2) LEARNING OUTCOMES

Learning outcomes
Upon successful completion of the course, students will be able (according to Bloom) to: - Describe and explain the physiological and management factors, as well as the chemical, nutritional, technological, organoleptic, biological, microbiological, and hygiene parameters that determine and describe the intrinsic quality and safety of animal-derived food products, with emphasis on meat, milk and dairy products, eggs, fisheries, and honey (Knowledge / Comprehension / Analysis). - Analyze and evaluate the contribution of livestock production to the availability of products within food value chains, ensuring compatibility with current and emerging public perceptions of the quality and safety of animal-derived products (Analysis / Evaluation). - Understand and apply the basic principles of 'One Health', including the significance of zoonotic and foodborne diseases, transmission dynamics, and strategies for prevention and control of foodborne pathogens across animal-derived food value chains (Knowledge / Comprehension / Application / Evaluation).
General Competences
- Adaptation to the current situation - Decision making - Autonomous work - Team work - Development of innovative ideas - Respect and protection of the environment

(3) SYLLABUS

- Description and analysis of intrinsic quality and safety traits of meat, milk and dairy products, eggs, fisheries and honey. - Legislative framework which determines the production, processing and safety prerequisites of animal-derived food products. - Challenges and trends regarding the production of safe and of superior quality animal food products. - Description of physiological (breed, age, sex, productive stage) and management factors (standard farming practices, farming systems, nutrition, as well as housing, transportation and slaughtering conditions) and analysis of their effects on the quality and safety of animal food products across the farm to fork value chains.

- The significance of farming conditions, health, welfare and euthanasia status for the quality, hygiene and safety of animal food products.
- Methods for the assessment of intrinsic quality and safety of animal food products with emphasis on their nutritional value, organoleptic traits and hygiene.
- Food-borne diseases and their significance for public health.
- Biological, chemical, and physical hazards in food systems.
- The use of chemotherapeutic drugs in livestock and their correlation with food safety. Antibiotic resistance. Traceability.
- Genetics and epigenetics on the safety and quality of animal food products.
- Food technology and quality assurance in meat, milk, eggs, fisheries, honey and products thereof.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY	Face-to-face – Classroom discussion		
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	Internet (infographics, videos), communication via e-mail, exploitation of electronic platforms to support teaching (e.g. open e-class, e-student, Microsoft teams)		
TEACHING METHODS	Activity	Semester workload	
	Individual study	70	
	Lectures uploaded at open e-class	30	
	Course total (25 h of workload per ECTS)	100	
STUDENT PERFORMANCE EVALUATION	Language: Greek for Greek students and English for Erasmus students. Written tests using, completion type, multiple choice and alternative response (True/False) questions For Erasmus students oral tests and evaluation of presentations on relevant topics.		

(5) ATTACHED BIBLIOGRAPHY

Lecture notes

Skandamis Panagiotis (2023) Food safety and hygiene (Embryo ed., ISBN: 9786185252519)

Suggested scientific journals:

- Nature Sustainability
- Trends in Food Science and Technology
- Comprehensive Reviews in Food Science and Food Safety
- Global Food Security
- Applied and Environmental Microbiology
- Journal of Dairy Science
- Food Control
- Meat Science
- International Journal of Food Microbiology
- Food Microbiology