FOOD HYGIENE, SAFETY AND RISK ASSESSMENT

COURSE OUTLINE

GENERAL

SCHOOL	AGRICULTURAL SCIENCES		
DEPARTMENT	FOOD SCINECE AND NUTRITION		
COURSE LEVEL	*Undergraduate*		
COURSE CODE	ME713	**SEMESTER**	7th
COURSE TITLE	FOOD HYGIENE, SAFETY AND RISK ASSESSMENT RESPONSIBLE: M. KAKAGIANNI		

INDEPENDENT TEACHING ACTIVITIES	**WEEKLY TEACHING HOURS**	**ECTS**
Lectures	3	6
Lab Lectures-exercises	3	

COURSE TYPE *Background, General Knowledge, Scientific Area, Skill Development*	*Scientific Area, special background*
PREREQUISITES:	General Microbiology Food Microbiology Food Engineering Food Preservation and Packaging Quality Organoleptic Control and Food Authenticity
LANGUAGE OF TEACHING AND EXAMINATIONS:	GREEK
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES
URL	**https://food.uth.gr/ugieinh-kai-asfaleia/**

TEACHING RESULTS

Teaching Results
• FOOD HYGIENE, SAFETY AND RISK ASSESSMENT aims to educate the students in matters concerning: the concepts of quality, hygiene and food safety and in between the correlation, the distinct differences between microbiological safety and microbiological quality of food, food hazards (biological, chemical, physical), pathogenic bacteria, fungi, viruses and food parasites, mycotoxins, biotoxins of plant, shellfish and fish origin, food allergens, chemical food contaminants, agricultural and veterinary drugs, heavy metals, dioxins, etc., migration materials from packaging, foreign bodies, food contamination with risks, cross-contamination, risk management in the food industry, basic hygiene rules, in the sense of the guides of good hygiene and industrial practice, which at the same time they are prerequisites of HACCP (HACCP principles, risk analysis and risk, control measures and critical points, application of HACCP in the food industry) for implementation of food safety management systems, Risk Analysis Upon successful completion of the course, the student will be able to: • • define and relate the concepts of quality, hygiene and food safety, appreciating the value that meeting safety and quality has for food • • distinguish the differences between microbiological safety and microbiological quality of food. • • identify the risk factors (hazards) in food (biological, chemists, physicists).

- concludes the usefulness of having basic rules of hygiene, in the form of good practice guides, for the implementation of food safety management systems (HACCP).
- effectively inspect a Food Industry for compliance with hygiene rules
- perceive the needs of installation or improvement of basic and functional sanitation infrastructure Food Industry.
- coordinate systematic epidemiological analyzes to identify the source of challenge of foodborne diseases in case of outbreaks
- design appropriate sanitation methods for food with a view to prevention, elimination or the reduction of sources of risk to acceptable levels, for the safety of the consumer
- participate in working groups on risk assessment, management risk management and the risk communication policy.
- realize the interdisciplinarity that requires a holistic approach to Food Safety through interconnection of the course with other courses of the Study Program
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General Skills

- Application of knowledge in practice
- Search, analysis and synthesis of data and information, with use of necessary technologies
- Adaptation to new situations
- Decision making
- Work in an interdisciplinary environment
- Generation of new research ideas
- Exercise criticism and self-criticism
- Promotion of free, creative and inductive thinking

CONTENT

LECTURES

1. Introduction to Food Hygiene and basic concepts – Definitions (Basic definitions and modern indicators risk assessment)
2. Food Quality and Hygiene – Practices to ensure hygiene and microbiological food safety – Distinguish between microbiological safety and microbiological quality food – Safety and quality in food.
3. Hygiene Legislation: White Paper – Codex Alimentarius – Package of Food Hygiene Regulations (Codex of Food (Codex Alimentarius): Basic food hygiene texts – General principles for food hygiene – Hygiene infrastructure in the food industry, Good Industrial/Hygienic Practice (GMP/GHP) – Cleaning and disinfection, personal hygiene of food industry personnel)
4. Risk factors (hazards) of food - Characteristics of risk factors, limits of increase of the main pathogenic micro-organisms, foods with which they are associated and in which they are most common risk factors are found (potentially dangerous foods) – Control of risk factors in food (barrier theory-implementation of preventive control measures) – Microorganisms as indicators food hygiene.
5. Introduction to Quality Assurance Systems - Basic Principles (HACCP)
6. Application of Hazard Analysis to Critical Control Points in food.
7. Risk analysis
8. Quality control in food safety (description of basic quality analytical methods control)

TEACHING AND LEARNING METHODS - EVALUATION

TEACHING METHOD.	Face to face lectures in the auditorium/classroom and face to face laboratory exercises in an appropriate laboratory.
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	• Use of I.C.T. in Teaching, in Laboratory Education, in Communication with the students • Use of ICT in Teaching • Use of ICT in Laboratory Education (Usage software for statistical control of the quality of food) • Use of ICT in Communication with students The course material (theory and exercises) is posted in the e-class of the DFSN of UT. Communication with the students is done through announcements on the e- class. From this platform, students can communicate by email with the teacher.

TEACHING STRUCTURE	*Activity Semester*	*Workload*
	Lectures	39
	Practice exercises that focus on application of methodologies and analysis case studies, to smaller groups of students	39
	Elaboration of a plan(project)	36
	Independent Study	36
	Course Total: ***(25 hours of workload per credit unit)***	**150**
EVALUATION OF STUDENTS	1. Written exam (70 %): - Multiple choice questions - Short development questions - Extended development questions - Analysis of roles, proposals or decision-making in brief case studies and documentation of answers 2. Lab grade (30%): - Writing group study - Presentation of group work	

BIBLIOGRAPHY

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- HACCP - THE QUALITY APPROACH, Evangelos Evmorfopoulos, 1st Edition, 2020, Publications: EMBRYO COMMERCIAL PUBLISHING MANAGEMENT SOLE ENTITY IKE
- Food Hygiene, Varzakas Th., 1st Edition, 2021, Publications: Tsotras EE
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- Food: Quality Control, Safety and Microbiology, C. Proestos, P. Markakis, 1st Edition, 2017, DA VINCI M.E.P.E. Publications
- FOOD SAFETY AND QUALITY, Nikolaos Andritsos, Edition 1, 2021, Publications: EMBRYO COMMERCIAL PUBLISHING ADMINISTRATIVE SOLE REPRESENTATIVE IKE
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- Food safety, Arvanitogiannis Ioannis S., Sandrou Dimitra, Kurtis Lazaros, Edition 1, 2001, Publications UNIVERSITY STUDIO PRESS - ANONYMOUS COMPANY OF GRAPHIC ARTS AND PUBLICATIONS
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