

COURSE OUTLINE

1. GENERAL

SCHOOL	AGRICULTURAL AND FORESTRY SCIENCES		
DEPARTMENT	AGRICULTURAL DEVELOPMENT		
LEVEL OF STUDIES	ISCED LEVEL 7-MASTER OR EQUIVALENT		
COURSE CODE	PBTF04	SEMESTER	2 ND
COURSE TITLE	FUNDAMENTALS OF FOOD AND WATER HYGIENE AND SAFETY		
TEACHING ACTIVITIES		TEACHING HOURS PER WEEK	ECTS CREDITS
LECTURES		3	7.5
COURSE TYPE	SCIENTIFIC AREA		
PREREQUISITES	NO		
TEACHING & EXAMINATION LANGUAGE	GREEK		
COURSE OFFERED TO ERASMUS STUDENTS	NO		
COURSE URL	https://eclass.duth.gr/courses/OPE01192/		

2. LEARNING OUTCOMES

Learning Outcomes
<ul style="list-style-type: none"> • Evaluate, identify and categorize possible food hazards of chemical, physical or microbiological nature. • Evaluate epidemiological data based on food-borne incidence. • Comprehend the importance of necessary measures taken during food processing (personal hygiene included) in order to avoid food hazards. • Evaluate the proper actions during food production. • Adopt the most efficient methodology in food shelf-life and preservation estimation. • Assess water quality used as drinking or during food production in the forms of ice and steam as well as water's treatment technology. • To identify the proper food claims.
General Skills
<ul style="list-style-type: none"> • Independent and team work • Search, analysis and synthesis of data and information, ICT Use • Development of inductive reasoning • Critical thinking

3. COURSE CONTENT

<ol style="list-style-type: none"> 1. Presentation of course outline and assignments 2. Food hazards 3. Spoilage microorganisms and pathogens 4. Historical and recent data of food-borne epidemics 5. Food and personal hygiene 6. Requirements and particularities in food industry 7. Thermal processing of foods 8. Non-thermal processes and packaging

9. Food shelf-life and preservation. Regulations, methods.
10. Water quality
11. Ice and steam quality
12. Water treatment
13. Food claims regulations
14. Final exams

4. LEARNING & TEACHING METHODS - EVALUATION

TEACHING METHOD	Distance learning	
USE OF INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT)	MS Power point, Excel, SPSS Duth e-class MS Teams for distance learning	
TEACHING ORGANIZATION	Activity	Workload/semester
	Lectures	39
	Individual written assignments	75
	Independent study	73.5
	Course Total	187.5
STUDENT EVALUATION	<ul style="list-style-type: none"> Submitted assignments: 25% of the final score Written exams at the end of the semester (multiple- choice questions): 75% of the final score <p>Students are aware of the process from the start of the semester and are constantly informed via the e-class platform.</p>	

5. SUGGESTED BIBLIOGRAPHY

1. Bacterial flora in digestive disease. Scarpignato C, Lanas A.
2. Hygiene for Management: A text for food safety courses. Sprenger R.
3. Modern food microbiology. Jay M.
4. Kurita Handbook of water treatment. Takahide S.
5. Automation for food engineering. Clydesdale F.
6. Statistical aspects of the microbiological examination of foods. Jarvis B.
7. Freshwater microbiology. Sigee D.
8. Food safety handbook. Schmidt R, Rodrick G.
9. Food safety and food quality, Hester R, Harrison M.
10. Foodborne pathogens: Hazards, risk analysis and control. Blackburn W, McClure
11. Hygiene in food processing. Lelieveld M, Mostert A, Holah J, White B.
12. Introduction to food toxicology. Shibamoto T, Bjeldanes L.
13. Food hygiene. Marwala K.

ANNEX OF THE COURSE OUTLINE Alternative ways of examining a course in emergency situations	
Teacher	Athanasios Alexopoulos
Contact details	alexopo@agro.duth.gr, 2552041169, e-class
Supervisors	No
Evaluation methods	Written assignments and final exercises
Implementation Instructions	<p>Written assignments should be uploaded in e-class platform until the day of the final exams.</p> <p>Final exams (multiple choice questions) will be accessible via e-class platform at the specific date and time.</p> <p>In the case of difficulties with the platform, please contact Prof. Athanasios Alexopoulos.</p>