FOOD TOXICOLOGY
COURSE OUTLINE

GENERAL

SCHOOL	AGRICULTURAL SCIENCES			
DEPARTMENT	FOOD SCINECE AND NUTRITION			
COURSE LEVEL	*Undergraduate*			
COURSE CODE	MK717	**SEMESTER**	7th	
COURSE TITLE	FOOD TOXICOLOGY			
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*			
PREREQUISITES:				
LANGUAGE OF TEACHING AND EXAMINATIONS:	GREEK			
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES			
URL	https://food.uth.gr/			

TEACHING RESULTS

Teaching Results
Upon successful completion of the course, the student will be able to: • To understand the basic concepts of toxicology in order to understand its nature problem arising on a case-by-case basis • Understand the toxicological hazards that may occur in various foods based on their nature and production and storage conditions • To perform estimation calculations and to evaluate the risk from exposure to toxic agents • Understand the parameters that affect the results of analytical techniques and assess the reliability of a method • Be able to look up legislation relating to maximum acceptable levels residues of a toxic agent and be able to evaluate the results
General Skills
1. Search, analysis and synthesis of data and information, using and necessary technologies. 2. Adaptation to new situations. 3. Decision making. 4. Autonomous work. 5. Group work. 6. Project planning and management. 7. Exercise criticism and self-criticism 8. Promotion of free, creative and inductive thinking

CONTENT

LECTURES

1st Week
Introduction to Food Toxicology and Foodborne Illness.
2nd Week
Assessment and Risk Management of Toxic Substances.
3rd Week
Absorption, Distribution, Storage and Excretion of Toxic Substances.
4th Week
Bioconversion of Toxic Substances.
5th Week
Detection and Determination of Toxic Substances in Food.
6th Week
Endogenous Food Toxins of Animal Origin.
7th Week
Toxic Phytochemicals and Pesticides
8th Week
Industrial pollutants and heavy metals.
9th Week
Food Additives and toxic compounds formed during Food Processing.
10th Week
Pathogenic microorganisms and foodborne diseases. Natural toxins of living organisms
11th Week
Mechanisms of response/prevention against food pathogenic microbes.
12th Week
Nutritional Diseases.
13th Week
Recap of key concepts

LAB EXERCISES
In the form of tutorials

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
Lab exercises	36
Reporting from lab exersices	36
Preparation for exams	39

	Course Total: ***(25 hours of workload per credit unit)***	**150**
EVALUATION OF STUDENTS	1. Written exam (70 %): - Multiple choice questions - Short development questions - Questions of crisis and development 2. Laboratory exercises (20%): - Participation and performance during the laboratory exercise - Written report of laboratory results Therefore: the total grade is obtained as a sum of above two individual evaluations	

BIBLIOGRAPHY

-Suggested Bibliogrphy:

- Food Toxicology: 1st Edition/2015. Yaginis Konstantinos, Karantonis Charalambos, Theoharis Stamatios. Publications Ziti Pelagia & Co. I.K.E. – ISBN: 978-960-456-453-8 2.
- Basic Toxicology: 1st Edition /2013. C. KLAASSEN, J. WATKINS. PARISIANO EDITIONS ANONYMOUS PUBLISHING AND IMPORTING TRADE COMPANY OF SCIENTIFIC BOOKS. ISBN: 978-960-394-932-9.