



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Food Toxicology							
Course Code		VBH529		Course Level		Second Cycle (Master's Degree)			
ECTS Credit	3	Workload	75 (Hours)	Theory	1	Practice	0	Laboratory	0
Objectives of the Course		The course aims to provide with information to the students about structure, formation, sources of toxic compounds in foods; detection of adverse effects on health; mechanisms of action; methods and safety limits in which hazards can be controlled.							
Course Content		Classification of toxic food components, food additives, toxicology and health risks, reliability of food packaging materials, toxicological evaluation of genetic modification applications in foods and national and international regulations							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion					
Name of Lecturer(s)		Lec. Pelin KOÇAK KIZANLIK							

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

### Recommended or Required Reading

1	Concon, J. M. 1988. Food Toxicology.
2	Marcel Dekker, NY. Moffat, C.M. and K. Whittle. 1999. Environmental Food Contaminants in Food.
3	CRC Press, Boca Raton, FL. Shibamoto, T. and L.F. Bjeldanes. 1993. Introduction to Food Toxicology. Academic Press, Hartcourt Brace & Com. San Diego
4	Steinhart, C.E., Doyle, M.E. and B.A. Cochrane. 1995. International Food Safety Handbook
5	Marcel Dekker, NY. Vries, de J. 1997. Food Safety and Toxicity. CRC Press, Boca Raton

Week	Weekly Detailed Course Contents	
1	Theoretical	Toxicology meaning, definition and classification of toxic food components
2	Theoretical	The history of food toxicology, effects of food-borne toxic substances on human health
3	Theoretical	Foodborne microbial diseases and toxins (bacterial and parasitic toxins)
4	Theoretical	Mycotoxins and health risks in foods
5	Theoretical	Toxic compounds naturally found in foods
6	Theoretical	Food-borne pesticides and veterinary drug residues
7	Theoretical	Health risks and toxicology of food additives
8	Intermediate Exam	Midterm exam
9	Theoretical	Heavy metal contamination in foods
10	Theoretical	Other environmental contaminants (Dioxin, melamine, caramel and 4-methylimidazole, acrolein etc.)
11	Theoretical	Food sensitivities (allergens intolerance)
12	Theoretical	Toxic substances formed during food processing (PAH, acrylamide, furans, trans fatty acids etc.)
13	Theoretical	Health risks arising from food packaging materials and packaging material reliability
14	Theoretical	Toxicological evaluation of newly developed (functional) foods and genetic modification applications in foods
15	Theoretical	Effects of toxic substances and therapeutic agents on intestinal biota
16	Final Exam	Final exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	1	14
Reading	14	0	2	28
Midterm Examination	1	13	1	14



Final Examination	1	18	1	19
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3
*25 hour workload is accepted as 1 ECTS				

### Learning Outcomes

1	To have knowledge about toxic foods and toxic compounds in foods
2	To learn foodborne microbial and parasitic toxic substances, to have information about public health hazards and to learn about prevention measures
3	Veterinary medicines, pesticides, the presence of environmental pollution in food and public health
4	To have knowledge about toxic substances transmitted during processing and packaging of foods and to learn and evaluate prevention measures
5	To be able to comment on toxic hazards arising from newly developed foods and apply protection measures
6	To have knowledge about national and international measures in toxic assessments

### Programme Outcomes (Food Hygiene and Technology (Veterinary Medicine) Master)

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### Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5	L6
P2	5	5	5	5	5	5
P9	5	5	5	5	5	5
P10	4	4	4	4	4	4

