



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Chemical, Microbiological, Physical and Sensory Analysis of Meat and Meat Products							
Course Code		VBH627		Couse Level		Third Cycle (Doctorate Degree)			
ECTS Credit	5	Workload	125 (<i>Hours</i>)	Theory	1	Practice	2	Laboratory	0
Objectives of the Course		To teach chemical, microbiological, physical and sensory analysis of meat							
Course Content		To teach the routine applications for the analysis of chemical, physical, microbiological and sensory of meat.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Demonstration, Discussion, Individual Study, Problem Solving					
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Varham and Sutherland, Meat and Meat Products.
2	Handbook of Meat, Poultry and Seafood Quality

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to the microbiological analysis carried out in meat and meat products.
	Practice	Media used in food microbiology, their preparation, plating out methods and evaluation of the results
2	Theoretical	The numbers of TMA, coliform, Staphylococ-micrococ, Staph. aureus, yeast and moulds and Enterobacteriaceae in meat and meat products
	Practice	Application of the therical lecture in practice
3	Theoretical	Determination of Salmonella spp., Listeria monocytogenes, Y. enterocolitica, E. coli O157:H7 in meat and meat products
	Practice	Application of the therical lecture in practice
4	Theoretical	Description of taste aroma and texture.
	Practice	Application of the therical lecture in practice
5	Theoretical	Establishment of panels, education of panelists, Description of sensory analysis, and smell, taste, aroma and texture. Basic tests used in sensory analysis
	Practice	Application of the therical lecture in practice
6	Theoretical	Dual comparison tests, Triangle test, Hedonic scale rating test
	Practice	Application of the therical lecture in practice
7	Theoretical	Evaluation of tests
	Practice	Discussion
8	Intermediate Exam	Midterm
9	Theoretical	Introduction to chemical analysis in meat and meat products
	Practice	Introduction to chemistry lab
10	Theoretical	Protein and fat analysis carried out in meat and meat products
	Practice	Application of the therical lecture in practice
11	Theoretical	pH, salt, dry matter and fat analysis in meat and meat products.
	Practice	Application of the therical lecture in practice
12	Theoretical	Cheating in meat and meat products
	Practice	Histological analysis of meat and meat products
13	Theoretical	Species differentiation in meat and meat products
	Practice	Serological and moleculer test for species differentiation



14	Theoretical	Determination of putrefaction in meat and meat products
	Practice	Spoilage tests
15	Theoretical	Discussion
	Practice	Discussion

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	1	14
Lecture - Practice	14	0	2	28
Assignment	14	0	1	14
Reading	14	0	1	14
Midterm Examination	1	20	1	21
Final Examination	1	33	1	34
Total Workload (Hours)				125
[Total Workload (Hours) / 25*] = ECTS				5
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	knows the chemical analysis of meat and meat products
2	applies the physical analysis for meat and meat products
3	carries out microbiological analysis in meat and meat products
4	carries out sensory analysis in meat and meat products
5	knows the tests and applies them to determine the cheatings done by manufacturer
6	can carry out species differentiation by using ELISA and molecular techniques

Programme Outcomes (Food Hygiene and Technology (Veterinary Medicine) Doctorate)

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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
P1	5	5	5	5	5	5
P2	5	5	5	5	5	5
P3	5	5	5	5	5	5
P4	5	5	5	5	5	5
P5	5	5	5	5	5	5
P6	5	5	5	5	5	5
P9	5	5	5	5	5	5
P10	5	5	5	5	5	5
P11	5	5	5	5	5	5
P12	5	5	5	5	5	5
P13	5	5	5	5	5	5

