

AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Meat Science							
Course Code		VBH522		Couse Level		Second Cycle (Master's Degree)			
ECTS Credit	5	Workload	125 <i>(Hours)</i>	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		To provide information to students about the nutritional value of meat , discrimination of meat species , rigor mortis and biochemical mechanisms occuring in muscle, meat preservation methods of meat and classification of meat according to the quality.							
Course Content		The definition and composition of meat , the changes in the muscle after slaughtering , the meat quality attributes and preservation methods of meat					quality		
Work Placement		N/A							
Planned Learning Activities and Teaching Methods		Methods	Explanation	n (Presentat Study, Probl	tion), Experime em Solving	ent, Demonstra	ation, Discussion	۱,	
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

1	YILDIRIM, Y. Et Endüstrisi. Kozan Ofset Mat. San. Ve Tic. Ltd. Şti., Ankara, 1996
2	GÖKALP, H.Y., KAYA, M. Ve ZORBA, Ö. Et Ürünleri İşletme Mühendisliği, Erzurum: Atatürk Üniversitesi Yayın No:786
3	Arslan, A. Et Muayenesi ve Et Ürünleri Teknolojisi
4	Türker, S. Havvansal Gidalarda Kalite Kontrolü

Week	Weekly Detailed Course Contents					
1	Theoretical	Definition of meat and importance of meat about nutrition, general information about meat production and consumption in the world and Turkey				
	Practice	The physical examination of meat and meat products				
2	Theoretical	Composition of meat (Water, fat, proteins, vitamins and mineral substances), classification of livestock meat				
	Practice	Measurement of bleeding degree				
3	Theoretical	listological structure of muscle tissue, structure and chemical composition of meat				
	Practice	Differentiation of meat species by ELISA				
4	Theoretical	Separation of the meat species				
	Practice	Measurement of water activity value in meat and meat products				
5	Theoretical	Changes in the muscle after slaughtering (mechanism of muscle conversion to meat and postmortem changes)				
	pH and acidity analysis on meat and meat products					
6	Theoretical	Rigor mortis and varieties of rigor mortis, aging of meats				
	Practice	Ash and moisture measurement in meat and meat products				
7	Theoretical	Factors affecting of postmortem changes				
	Practice	Analysis of protein in meat and meat products				
8	Intermediate Exam	Midterm exam				
9	Theoretical & Practice	Effects of postmortem changes on meat quality & Determination of fat in meat and meat products				
10	Theoretical	Artificially maturing of meat				
	Practice	Analysis of salt in meat and meat products				
11	Theoretical	Quality properties of meat and classification to carcass quality				
	Practice	Definition of precious meat parts				
12	Theoretical	Factors affecting carcass quality (cultivation, postmortem changes, genetics etc.)				
	Practice	Putrification tests in meat and meat products				
13	Theoretical	Meat hygiene, meat microbiology and causes of spoilage and pathogenic microorganisms				
	Practice	Measurement of sensory changes in meat				



14	Theoretical	Meats protection and protection methods
15	Theoretical	Chilling, freezing, and thaw of meat
	Practice	Determining some pathogens in meat and meat products (Salmonella spp, Listeria monocytogenes)
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload			
Lecture - Theory	14	0	2	28			
Lecture - Practice	14	0	2	28			
Reading	14	0	2	28			
Midterm Examination	1	15	2	17			
Final Examination	1	22	2	24			
	125						
	5						
*25 hour workload is accepted as 1 ECTS							

*25 hour workload is accepted as 1 ECTS

Learning Outcomes					
1	Learn about information meat composition and importance of meat in term of nutritional physiology				
2	To learn histological structure of the meat and transformation mechanism of muscle to meat				
3	To learn differentiation of meat types				
4	To learn classification according to meat quality				
5	To learn knowledge about cooling and freezing preservation method sof meat				
6	Find out the effect of postmortem changes on meat quality				

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

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	

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
P4	5	5	5	5	5	
P6	5	5	5			
P7	5	5	5	5	5	
P9	5	5	5		5	
P11			5			
P12		5		5		
P13	5	5		5	5	5

