AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title		Dairy Science and Technology						
Course Code		VBH528		Couse Level	Second Cycle (Master's Degree)			
ECTS Credit	5	Workload	125 *(Hours)*	Theory	1	Practice	2	Laboratory	0

Objectives of the Course	To learn the composition and nutritional value of milk, to obtain detailed information about the formation of milk, milk components, transmission of infections from milk to humans and public health protection measures, healthy production and preservation of milk and the points to be considered during transportation to milk production places.
Course Content	To learn the composition and nutritional value of milk, to obtain detailed information about the formation of milk, milk components, transmission of infections from milk to humans and public health protection precautions, healthy production, preservation of milk and during transportation to milk production places and the points to be considered.
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	İnal, T. Süt ve Süt Ürünleri Hijyen ve Teknolojisi
2	Üçüncü, M. Süt bilimi
3	Tekinşen, C. Süt ve Süt Teknolojisi

Week	Weekly Detailed Course Contents	
1	Theoretical	Definition of milk, mechanism of formation, place and importance of milk in nutrition
	Practice	Determination of density in milk
2	Theoretical	Composition of milk, milk properties (organeleptic and physical properties)
	Practice	pH and acidity in milk
3	Theoretical	Milk proteins, their classification and properties
	Practice	Determination of fat in milk
4	Theoretical	Milk lipids, their classification and properties
	Practice	Determination of dry matter and ash in milk
5	Theoretical	Carbohydrate and properties of milk, mechanism and types of milk fermentation
	Practice	Enzyme activity tests
6	Theoretical	Vitamins and minerals of milk, gases in milk
	Practice	Determining for preservatives in milk
7	Theoretical	Milk enzymes
	Practice	Determination of protein in milk
8	Intermediate Exam	Midterm exam
9	Theoretical	Classification of milk (albumin and casein milk), colostrum, abnormal milk
	Practice	Control of the presence of antibiotics in milk
10	Theoretical	Factors affecting the quantity and composition of milk
	Practice	Determination of total viable count in milk
11	Theoretical	Microflora of raw milk, mamilla skin and microflora of mamilla, milk-borne diseases
	Practice	Identification of yeast and molds in milk
12	Theoretical	Collecting milk, acceptance to the dairy and points to be considered before processing, platform tests
	Practice	Investigation of coliform bacteria in milk
13	Theoretical	Processing raw milk in dairy (cleaning, standardization, homogenization applications)

13	Practice	Counting micrococci and satafilococci in milk
14	Theoretical	Pasteurized and sterile milk technology
	Practice	Investigation of S. aureus in milk
15	Theoretical	Cleaning and disinfection and HACCP applications in dairy
	Practice	Investigation of pathogen bacteria in milk
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	1	14
Lecture - Practice	14	0	2	28
Assignment	11	0	3	33
Reading	14	0	2	28
Midterm Examination	1	7	1	8
Final Examination	1	13	1	14
			Total Workload (Hours)	125
			[Total Workload (Hours) / 25*] = **ECTS**	5

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	To learn the nutritional values of milk
2	To learn milk formation mechanisms and to define different milk groups
3	To learn the conditions for healthy milk production
4	To have necessary knowledge about microbial flora and quality of raw milk
5	Süt platformu testlerini öğrenmek ve bu testleri süte uygulamak
6	Preservation, processing and preservation of raw milk under hygienic conditions

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
P6			5			
P10	5	5	5	5	5	5
P13	5	5	5	5	5	5