MILK AND DAIRY TECHNOLOGY

1	Course Title:	MILK AND DAIRY TECHNOLOGY
2	Course Code:	VBH5011
3	Type of Course:	Optional
4	Level of Course:	Second Cycle
5	Year of Study:	1
6	Semester:	1
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	1.00
9	Practice (hour/week):	2.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. SERAN TEMELLİ
15	Course Lecturers:	Yok
16	Contact information of the Course Coordinator:	e-posta: seran@uludag.edu.tr Tel: 02242941260 Adres: Uludağ Üniversitesi Veteriner Fakültesi Besin Hijyeni ve Teknolojisi Anabilim Dalı Görükle
17	Website:	http://saglikbilimleri.uludag.edu.tr
18	Objective of the Course:	To teach physical, chemical and microbiological analysis in the quality control of milk and dairy products, sampling, interpretation of results, comparison of results with related regulations and directives
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Learns sampling for physical, chemical and microbiological analysis in the quality control of milk and dairy products.
	2	Learns collection of raw milk, quality control platform test for acceptance and their interpretations.
	3	Learns physical and chemical analysis of heat treated milk.
	4	Learns chemical analysis of yoğurt and ayran, determination of adulteration substances and their interpretations.
	5	Learns chemical analysis of cream and butter.
	6	Learns chemical analysis of cheese for quality control.
	7	Learns microbiological analysis of raw and heat treated milk, and their interpretations.
	8	Learns microbiological analysis of yogurt/ayran and cream/butter.
	9	Learns microbiological analysis of cheeses for quality control and their interpretations.
	10	Learns related regulations and directives on milk and dairy products
21	Course Content:	

Course Content:

Week	Theoretical	Practice

1	Sampling for physical and chemical analysis in the quality control of milk and dairy products, properties of equipment, storage and transport of sample	Sampling for physical and chemical analysis in milk and dairy products
2	Collection of raw milk, quality control platform test for acceptance and their interpretations (temperature, acidity, pH, density, fat)	Determination of temperature, acidity, pH, density, fat content in raw milk
3	Collection of raw milk, quality control platform test for acceptance (protein, ash, dry matter),	Determination of protein, ash, dry matter in raw milk
4	Quality control tests in collection of raw milk, quality control platform test for acceptance to plant (somatik cell count, reduction test, adulterants, antibiotics)	Detection of somatik cell count, methylene blue reduction test, hydrogen peroxide, boric acid, formaldehyde, carbonate and antibiotics in raw milk
5	Chemical analysis of heat treated milk (acidity, density, protein, dry matter, fat, ash)	Determination of acidity, density, protein, dry matter, fat, ash in pasteurized and/or UHT milk
6	Chemical analysis of yoğurt and ayran (acidity, density, protein, dry matter, fat), and adultreration substances (starch),	Determination of acidity, density, protein, dry matter, fat in yogurt and/or ayran, and starch in yogurt
7	Chemical analysis of cream and butter (acidity, density, protein, dry matter, salt),	Determination of acidity, density, protein, dry matter, salt in cream and butter
8	Chemical analysis of cheese (pH, acidity protein, dry matter, fat, ash, salt)	Determination of pH, acidity protein, dry matter, fat, ash, salt in cheese
9	Sampling for microbiological analysis in the quality control of milk and dairy products, properties of equipment, storage and transport of sample	Sampling for microbiological analysis in milk and dairy products
10	Microbiological analysis of raw milk (TAMB,	TAMB, coagulase positive staphlococci count, detection of

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	1.00	14.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	6.00	84.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	1	1.00	1.00
Total Work Load			127.00
Total work load/ 30 hr			4.23
ECTS Credit of the Course			4.00

	(TAMB, Enterobacteriaceae count),	ve/veya UHT milk
12	Microbiological analysis of yogurt and ayran ... count)	Coliform, Escherichia coli, yeast and mold count in yogurt
13	Microbiological analysis of cream and butter ... Salmonella spp., coagulase positive staphylococci, Listeria monocytogenes)	Escherichia coli, yeast and mold count Salmonella spp. ... in cream and/or butter
	(Escherichia coli, yeast and mold count	coagulase positive staphylococci, Listeria monocytogenes
		2002. 3. Tekinşen, O.C., Atasever, M., Keleş, A. ve Tekinşen, K.K. Süt, Yoğurt, Tereyağı, Peynir Üretim ve Kontrol, Birinci Basım, Selçuk Üniversitesi Basımevi, Konya, 2002. 4. http:www.gkgm.gov.tr.Türk Gıda Kodeksi. İlgili Yönetmelikler ile Ürün Tebliğleri.
23	Assesment	

TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Midterm Exam	0	0.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	100.00
Total	1	100.00

Contribution of Term (Year) Learning Activities to Success Grade	0.00
Contribution of Final Exam to Success Grade	100.00
Total	100.00
Measurement and Evaluation Techniques Used in the Course	

24 ECTS / WORK LOAD TABLE

25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS

	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	3	3	5	1	5	1	2	1	5	1	0	0	0	0	0	0
ÖK2	5	5	5	5	5	1	2	1	5	1	0	0	0	0	0	0
ÖK3	4	5	5	5	5	1	2	5	1	3	0	0	0	0	0	0
ÖK4	4	5	5	5	5	1	2	5	1	3	0	0	0	0	0	0
ÖK5	4	5	5	5	5	1	2	5	1	3	0	0	0	0	0	0
ÖK6	4	5	5	5	5	1	2	5	1	3	0	0	0	0	0	0
ÖK7	5	5	5	5	5	1	2	5	5	3	0	0	0	0	0	0
ÖK8	5	5	5	5	5	1	2	5	5	3	0	0	0	0	0	0
ÖK9	5	5	5	5	5	1	2	5	5	3	0	0	0	0	0	0
ÖK10	5	3	5	5	3	1	2	1	5	1	0	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	**1 very low**	**2 low**	**3 Medium**	**4 High**	**5 Very High**