AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title		Quality Control in Dairy Industry II						
Course Code		ST408		Couse Level		First Cycle (Bachelor's Degree)		
ECTS Credit	4	Workload	102 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		After this course the participants will learn the physico-chemical and sensorial tests with milk and dairy products. So they can compare the results with the levels in the standards.						
Course Content		Quality and Quality control terms in the dairy industry,The aim of quality control in the dairy industry and factors affecting it,Common principles in quality control,Direct – indirect and qualitative – quantitative analyses ,The practice of physical and chemical analysis in dairy products,Sensorial tests						
Work Placement		N/A						
Planned Learning Activities and Teaching Methods			Explanation (Presentation), Discussion, Individual Study					
Name of Lecturer(s)								

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	1. Oysun,G.,1991, Süt ve mamulleri analiz yöntemleri, E.Ü.Z.F. Yay. No:504 Bornova,230s.
2	2. Metin, M., Öztürk, G.F., 2002. Süt ve Mamulleri Analiz Yöntemleri. E.Ü.Ege Meslek Yüksekokulu Yayınları No: 24
3	3. Yaygın,H.,Gönç,S.,Oktar,E., Kılıç.S., 1985, Süt ve mamulleri muayene ve analiz yöntemleri, E.Ü.Z.F. Teksir No:211 Bornova İzmir.
4	4. Yöney,Z.,1973,Süt ve mamulleri muayene ve analiz metodları, A.Ü. Ziraat Fak. Yay. No:491 Ankara,182s 5. Kurt,A.,Songül,Ç.,Çağlar,A.,1999, Süt ve mamulleri muayene ve analiz metotları rehberi, A.Ü. Ziraat Fak. Yay. No:18, Erzurum,238s.

Week	Weekly Detailed Course Contents	
1	Theoretical	Quality and Quality control terms, the aim of quality control, common principles in quality control, direct – indirect and qualitative – quantitative analyses, raw milk analyses (specific gravity, tests for determination of added water in milk)
2	Theoretical	Raw Milk Analyses • Soda • H2O2 • Lactose
3	Theoretical	Raw Milk Analyses • Total dry mass and fat free dry mass • Fat • pH • Acidity (L.A.) • Protein
4	Theoretical	Pasteurized and UHT Milk Analyses • Alcohol test • Phosphatase test • Peroxidase test
5	Theoretical	Pasteurized and UHT Milk Analyses • Microbial quality of milk • Homogenization test • Test fort he determination of the sterilization method • Fat (%)
6	Theoretical	Yoghurt Analyses • Dry mass • Fat (%) • Acidity (L.A.)
7	Theoretical	Yoghurt Analyses • Peroxide test • Water holding capacity • Hardness test
8	Intermediate Exam	Half Term Exam
9	Theoretical	Yoghurt Analyses • Viscosity • Determination of milk powder in yoghurt • Gelatin determination • Starch "
10	Theoretical	Cheese Analyses • Dry mass • Acidity • Fat (%)
11	Theoretical	Cheese Analyses • Salt • Rennet strength test • Sensorial tests
12	Theoretical	Butter Analyses • Moisture and dry mass • Fat • Acidity • Salt • Peroxidase • Phosphatase
13	Theoretical	Ice Cream Analyses • Dry mass • Fat • Acidity
14	Theoretical	Milk Powder Analyses • Dry mass • Fat • Acidity • Solubility in cold and hot water
15	Theoretical	Repetition of the themes and discussion
16	Theoretical	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56

Laboratory	14	0	2	28
Individual Work	14	0	1	14
Midterm Examination	1	0	2	2
Final Examination	1	0	2	2
			Total Workload (Hours)	102
			[Total Workload (Hours) / 25*] = **ECTS**	4

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	The participants can ensure the quality and and use quality control terms in the industry
2	They can do direct – indirect and qualitative – quantitative analyses
3	They will practice physico-chemical quality control methods in dairy products
4	They can compare the analyze results with the levels in the standards
5	They can classificate the dairy products by there quality characteristics

Programme Outcomes *(Dairy Technology)*

1	Having sufficient infrastructure in basic sciences and engineering subjects and ability to use the theoretical and applied info instantly in this field.
2	Determining the modern techniques, tools and information technologies required for applications related with his field and ability to use them efficiently
3	Ability for planning, projecting, and designing, following up, analyzing and finding target-driven solutions related with his field
4	Ability to have professional ethic and awareness.
5	Ability to work, decide, express opinions orally and in written individually
6	Ability to participate team studies, taking responsibility, making leadership.
7	Ability to conceive Ataturk's principles and reforms, to communicate in Turkish and foreign language.
8	Ability to comprehend the necessity to learn for a life time, to monitor developments in science and technology and continuously renew himself.
9	Having sufficient level of information about production and quality control of milk and dairy products and also product development, increasing product quality and food security fields.
10	Ability to detect, define, solve problems related with his field and to select and apply suitable methods and modeling techniques for this purpose.
11	To be conscious about workplace applications, worker health, work security and environment subjects, to have knowledge about legal results of the engineering applications related with his subject.

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

	L1	L2	L3	L4	L5
P5	4	4	4	4	4
P9	5	5	5	5	5
P10	4	4	4	4	4