AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Drink Milk Technology								
Course Code	ST309		Couse Level	First Cycle (Bachelor's Degree)					
ECTS Credit	4	Workload	100 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	Teaching the feed properties of milk, the technics of drinking milk								
Course Content	Knowledge about basic microbiological analyses, cultural and microscopic enumeration methods, controlling pathogens and indicator bacteria, probiotic and lactic cultures, personnel and equipment control methods								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Individual Study, Problem Solving								
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. Andersson, I., R. Öste. 1995. Nutritional quality of heat processed liquid milk. In: “Heat-Induced Changes in Milk”. Ed. P.F. Fox. Publ. By International Dairy Federation, 41 Square Vergote, B-1040, Brussels(Belgium). Pp. 279-307.
2	2. Andersson, I., R. Öste. 1995. Nutritional quality of heat processed liquid milk. In: “Heat-Induced Changes in Milk”. Ed. P.F. Fox. Publ. By International Dairy Federation, 41 Square Vergote, B-1040, Brussels(Belgium). Pp. 279-307.
3	3. Burton, H. 1988. Changes in milk at high temperatures. In: “Ultra-High-Temparature Processing of Milk and Milk Products”. Elsevier Applied Science Publishers Ltd., London , pp. 44-76.

Week	Weekly Detailed Course Contents	
1	Theoretical	İntroduce, the properties of milk
2	Theoretical	The effects of heating on the general properties of milk
3	Theoretical	The effect of heating on the chemical properties of milk
4	Theoretical	The effect of heating on the bio- chemical properties of milk
5	Theoretical	The effect of heating on the microbiolojical properties of milk
6	Theoretical	Heaters
7	Theoretical	The devices used the drinking milk technology and pre-processses of milk
8	Intermediate Exam	Midterm exam
9	Theoretical	Pasteurisation of milk
10	Theoretical	The prenciples of sterilisation
11	Theoretical	Ultra High Temperature (UHT) sterilisation technique of milk
12	Theoretical	The properties of pasteurized and UHT milk and the quality changes durıng storage
13	Theoretical	Flavour milk technology, recombined and reconstitued milk
14	Theoretical	Aceptic Packing systems and packing
15	Theoretical	Aceptic Packing systems and packing
16	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Assignment	1	10	2	12
Laboratory	14	0	2	28
Midterm Examination	1	0	2	2

Final Examination	1	0	2	2
			Total Workload (Hours)	100
			[Total Workload (Hours) / 25*] = **ECTS**	4
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	1. Knowing the effects of heating on the milk properties
2	2. Learning different technologies using drinking milk, effects of properties of milk and diferences between them
3	3. Learning to use devices during prosess and working principles of them
4	4. Knowing pasteurasition and sterilisation methods using to produce drinking milk
5	5. Making the control of methods using to produce pasteurized and UHT milk

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
P1	5				
P2			4		
P3				4	4
P9	5	5	5	5	5