



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		New Techniques in Dairy Industry							
Course Code		ST306		Course Level		First Cycle (Bachelor's Degree)			
ECTS Credit	4	Workload	96 (Hours)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		Having knowledge about the modern technologies used in Dairy Technology							
Course Content		Separation, membrane filtration, evaporation and modern processing methods which is applied to milk during its commissioning and processing steps.							
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. Oysun, G. Gönç, S., 1996, Süt İşleme .mühendisliği E.Ü.Zir.Fak. yayınları No:522 Bornova İzmir 1996.
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Week	Weekly Detailed Course Contents	
1	Theoretical	Separation and separators
2	Theoretical	Open type seperators
3	Theoretical	Semi-closed type separators
4	Theoretical	Closed (Hermetic) separators
5	Theoretical	Deaerators, Deodorizers
6	Theoretical	Emulgation, homogenization concepts
7	Theoretical	Homogenizers
8	Intermediate Exam	Middle Exam
9	Theoretical	Heating
10	Theoretical	Heat exchanger
11	Theoretical	Evaporators
12	Theoretical	Freeze dryer
13	Theoretical	Membrane filtration techniques
14	Theoretical	Membrane filtration techniques
15	Theoretical	The modern cheese production systems
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Assignment	2	0	8	16
Project	1	0	4	4
Studio Work	2	0	8	16
Midterm Examination	1	0	2	2
Final Examination	1	0	2	2
Total Workload (Hours)				96
[Total Workload (Hours) / 25*] = ECTS				4

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	To teach the pretreatments before the commissioning of the milk
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2	Learning the separation and the new techniques.
3	Learning and new applications of membrane filtration
4	Learning the modern cheese production system
5	Learning of heating and heat exchanger systems.

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 Atatürk'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
P2	5	5	5	5
P3	5	5	5	5
P9	5	5	5	5
P10	5	5	5	5

