



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title	Auxiliary Substances in Dairy Technology								
Course Code	GMP610		Course Level		Third Cycle (Doctorate Degree)				
ECTS Credit	8	Workload	200 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	This course covers the food additives which are used in the production of milk products and the aim of these additives								
Course Content	This course includes food additives used in dairy industry and adjunct substances in the production of milk industry								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Case Study, Problem Solving								
Name of Lecturer(s)	Lec. Selda BULCA								

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	30
Final Examination	1	70

Recommended or Required Reading

1	Modern Süt Ürünleri Teknolojisi-Prof.Dr. Nihat Akın. Selçuk Üni.Gıda Müh.Böl. Konya
2	Süt ve Mamulleri Teknolojisi,Prof.Dr. Mustafa Üçüncü. Akademik Gıda. İzmir
3	Süt İşleme Teknolojisi. Prof.Dr. Mehmet Demirci. Hasad Yayıncılık, İstanbul
4	Süt Teknolojisi. Sütün Bileşimi ve İşlenmesi. Prof.Dr. Mustafa Metin. Akademik Gıda. İzmir
5	Walstra, P., Wouters, J.T.M., Geurts, T.J. 2006. Dairy Science and Technology. 2nd Edition, CRC Press (is available as e-book in ADU-library)

Week Weekly Detailed Course Contents & Teaching Methods

Week	Weekly Detailed Course Contents & Teaching Methods
1	Theoretical Auxiliary substances used in dairy technology and the aim of them
2	Theoretical Enzymes
3	Theoretical Starter cultures
4	Theoretical Whey powders, whey concentrate and whey protein isolates
5	Theoretical Casein and caseinates
6	Theoretical Melting salts
7	Theoretical Kalsiyum klorür, nitratlar, sorbatlar, nisin, lizozim
8	Theoretical Neutralizing agents
9	Theoretical Fruit and fruit based mixtures
10	Theoretical Sweeteners
11	Theoretical Aroma substances
12	Theoretical Colouring agents
13	Theoretical Stabilizators
14	Theoretical Emulgators

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	3	70
Assignment	2	28	2	60
Midterm Examination	1	29	1	30
Final Examination	1	39	1	40
Total Workload (Hours)				200
[Total Workload (Hours) / 25*] = ECTS				8

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	
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2	
3	
4	
5	

Programme Outcomes (Food Engineering Doctorate)

1	Developing and investigating the details of current and advanced knowledge in the field of Food Engineering by original thought and/or research on the level of expertise based on the graduate qualification and reaching to the original definitions that bring innovation to science.
2	Gain of ability of develop strategies, policies and implementation plans in the field of food engineering and evaluate the results within the framework of quality processes.
3	Gain of ability to perceive, design, evaluate and finish an original process by using and following the knowledge of the recent developments in the engineering fields.
4	Gain of ability of making critical analysis, synthesis and evaluation of ideas and development in food engineering field
5	Having advanced knowledge of food science and its applications based on doctoral level qualifications.

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	3	5		1	1
P2	4	3	4		
P3	2		2		
P4	4	4	3		

