



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Ice Cream Technology							
Course Code		ST310		Course Level		First Cycle (Bachelor's Degree)			
ECTS Credit	4	Workload	102 (<i>Hours</i>)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		Teaching some information on the ice cream definition, classification and processing technology and quality characteristics of ice-cream							
Course Content		Teaching the history, composition and the properties of ice-cream and related products and also manufacturing technology of ice cream as detail							
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. Akalın, S., Karagözlü, C. 2010 . Dondurma Teknolojisi Ders Notları. Basılmamış Ders Notları. Bornova – İzmir
2	2. Arbuckle, W. S. (1986). Ice Cream, An AVI Book, Van Nostrand Reinhold Company, USA
3	3. Marshall, R. T., Goff, H. D., Hartel, R. W. (2003). Ice Cream, Kluwer Academic/Plenum Publishers, USA

Week	Weekly Detailed Course Contents	
1	Theoretical	Classification, definition and composition of ice-cream and related products
2	Theoretical	Composition and properties of ice-cream
3	Theoretical	Composition and properties of ice-cream
4	Theoretical	Main ingredients and additives used in ice cream production and source of them
5	Theoretical	Main ingredients and additives used in ice cream production and source of them
6	Theoretical	Calculation of ice-cream mixes (Basic mixes)
7	Theoretical	Calculation of ice-cream mixes (Complex mixes)
8	Intermediate Exam	Midterm exam
9	Theoretical	Preparation of ice-cream mix. Pasteurization, homogenization, cooling of mix.
10	Theoretical	Ripening of mix
11	Theoretical	Freezing process
12	Theoretical	Overrun and hardening of ice cream
13	Theoretical	Ice-cream related products like soft ice-cream, water ice, ice-milk and milk shake
14	Theoretical	Quality control of ice cream
15	Theoretical	Quality control of ice cream
16	Final Exam	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	1. Having information about ice cream technology
2	2. Having information about ingredients and additives in ice cream producing
3	3. With evolving technology and consumer preferences as well as developing new products that may be taken into account to gain perspective
4	4. To ensure standardization and quality in the production of ice cream
5	Learning of main ingredients and additives used in ice cream production and source of them

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	L5
P1					4
P3			4		
P9	5	5	5	5	5

