AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Probiotics in Dairy Science								
Course Code	VBH530		Couse Level		Second Cycle (Master's Degree)				
ECTS Credit	4	Workload	100 *(Hours)*	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	To learn sufficient knowledge about probiotic food types, the formation mechanism of fermentation, to learn the production technologies of fermented milk products								
Course Content	Definition of probiotics and general characteristics of probiotics and bacteria and yeasts used for this purpose, production technologies of fermented milk products produced in the world and our country								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Discussion, Individual Study, Problem Solving								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	Lee, B. 1996. Fundamentals of Food Biotechnology. VCH Publishers Inc., NY.
2	Madigan, M.t., Martinko, J.M., Parker, J. 1997. Brock Biology of Microorganisms. Prentice- Hall, International, London
3	Salminen, S., Wright, A. von. 1998. Lactic Acid Bacteria: Microbiology and Functional Aspects. Marcel Dekker Inc. NY
4	Wood, B.J.B. 1998. Microbiology of Fermented Foods. Vol. I, II. Blackie Academic and Professional. London.

Week	Weekly Detailed Course Contents	
1	Theoretical	Definition of probiotics and general characteristics of probiotics
	Practice	Production of yoghurt
2	Theoretical	Methods used in the diagnosis of probiotics
	Practice	Production of yoghurt
3	Theoretical	Microorganisms used in fermented dairy products
	Practice	Determination of fat in yoghurt
4	Theoretical	Bacteria and yeasts which used as probiotics
	Practice	Measurement of acidity and pH in yogurt
5	Theoretical	Production technologies of fermented dairy products
	Practice	Determination of dry matter and ash in fermented dairy products
6	Theoretical	Yoghurt
	Practice	Investigation starch in yoghurt
7	Theoretical	Kefir
	Practice	Analysis of lactose, glucose, galactose in fermented dairy products
8	Intermediate Exam	Midterm exam
9	Theoretical	Koumiss
	Practice	Microbial analysis of yoghurt
10	Theoretical	Milk with acidophilus
	Practice	Microbial analysis of yoghurt
11	Theoretical	Concentrated fermented dairy products
	Practice	Determination of yeasts and molds
12	Theoretical	fermented milk products and their properties (Aktifit, Biokys, biyomild, vita, gerb) less or less produced in our country
	Practice	Production of kefir
13	Theoretical	Various fermented dairy products (tofu, labne, bio yoghurt)
	Practice	Production of kefir
14	Theoretical	Powder-dried fermented dairy products

14	Practice	Determination of fat in ayran and kefir
15	Theoretical	milk product which heat treated fermented after fermentation
	Practice	Investigation of coliform bacteria in fermented dairy products by MPN method

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Seminar	2	0	4	8
Reading	14	0	1	14
Midterm Examination	1	8	1	9
Final Examination	1	12	1	13
			Total Workload (Hours)	100
			[Total Workload (Hours) / 25*] = **ECTS**	4

**25 hour workload is accepted as 1 ECTS*

Learning Outcomes

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2	
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6	

Programme Outcomes *(Food Hygiene and Technology (Veterinary Medicine) Master)*

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

	L1	L2	L3	L4	L5	L6
P1	5	5	5	5	5	5
P11	5		5			
P12			5	5	4	5