STARTER CULTURE

1	Course Title:	STARTER CULTURE	
2	Course Code:	STUS207	
3	Type of Course:	Optional	
4	Level of Course:	Short Cycle	
5	Year of Study:	2	
6	Semester:	3	
7	ECTS Credits Allocated:	3.00	
8	Theoretical (hour/week):	1.00	
9	Practice (hour/week):	2.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Öğr.Gör. CUMHUR BERBEROĞLU	
15	Course Lecturers:	Dr.Ertan GÜNEŞ	
16	Contact information of the Course Coordinator:	cumber@uludag.edu.tr, 0224 6768784, U.Ü KMYO	
17	Website:		
18	Objective of the Course:	The importance of culture in terms of pure dairy products, the production and preparation of pure culture, uses and sources of error to teach during the production. Also highlights the importance of nutrition and health in terms of pure cultures.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Pure cultures of microorganisms which can see, recognize, and suitable staining techniques to examine the knowledge of
		2	Well with the gains obtained by using practical information based on the theoretical properties of microorganisms having the ability to distinguish according to
		3	Types and the types of industrial culture that is being used as a learning culture to reflect the properties of dairy products to have the ability to produce combinations
		4	To get successful results in the use of cultural production and its consequences for the ability to make the necessary checks to be capable of evaluating
		5	The production process of the type of culture to be capable of successfully using
		6	
		7	
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		10	
21	Course Content:		
	Course Content:		
Week	Theoretical		Practice

1	Giving information about the use of a pure definition of culture and industry	Laboratory presentation
2	Lactobacillaceae lactic acid bacteria family, Thermobacterium group	Starter culture painting techniques
3	Streptobacteriaceae family of lactic acid bacteria	Starter culture painting techniques
4	Lactic acid bacteria in the genus Leuconostoc	Starter culture activity tests
5	Lactic acid bacteria in the genus Propionibacterium	Starter culture activity tests
6	Probiotic cultures in dairy industries	Introduction of commercial cultures used in the industry
7	Use of yeasts, molds in dairy industry	Starter culture propagation methods
8	Search for repeating courses and exams	-
9	Pure cultures of bacteria in the elections	Yogurt culture propagation methods
10	A commercially produced pure cultures	Cheese culture propagation methods
11	The basic functions of pure culture	Cheese culture propagation methods
12	The benefits of using a pure culture	Culture propagation methods Butter
13	Reproduction in pure cultures and calculations	Kefir and buttermilk culture propagation methods
14	In pure cultures for quality control and errors	Year-end evaluation
22	Textbooks, References and/or Other Materials:	Commonly, H., Kilic, S. 1993. Pure Culture Dairy Industry. Kilic, S. Lactic Acid Bacteria 2001.Süt Industry. Kilic, S. , 2010. Dairy Microbiology LEVEAU, J.Y.; BOUİX, M. 1993. Microbiologie Industrielle, Les microorganismes d'Interet industriel.Lavoisier TEC-DOC, Apria, 612. Salminen, S., von Wright; Ouvehand, A. 2004 Lactic Acid Bacteria, Microbiological and Functional Aspects. Third Ed. 678
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	2	40.00
Quiz	0	0.00
Home work-project	1	10.00
Final Exam	1	50.00
Total	4	100.00
Contribution of Term (Year) Learning Activities to Success Grade		50.00
Contribution of Final Exam to Success Grade		50.00

Total	100.00
Measurement and Evaluation Techniques Used in the Course	

24 ECTS / WORK LOAD TABLE

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	1.00	14.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	1.00	14.00
Homeworks	1	10.00	10.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	2	4.00	8.00
Others	2	5.00	10.00
Final Exams	1	6.00	6.00
Total Work Load			90.00
Total work load/ 30 hr			3.00
ECTS Credit of the Course			3.00

25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS

	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	3	2	0	3	5	0	2	4	0	3	3	0	0	0	0	0
ÖK2	3	2	0	3	5	0	2	4	0	3	3	0	0	0	0	0
ÖK3	3	2	0	3	5	0	2	4	0	3	3	0	0	0	0	0
ÖK4	3	2	0	3	5	0	2	4	0	3	3	0	0	0	0	0
ÖK5	3	2	0	3	5	0	2	4	0	3	3	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	1 very low	2 low	3 Medium	4 High	5 Very High