ADVANCED CHEESE TECHONOLOGY

1	Course Title:	ADVANCED CHEESE TECHONOLOGY	
2	Course Code:	GMB6040	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	2	
7	ECTS Credits Allocated:	6.00	
8	Theoretical (hour/week):	3.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	-	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Prof. Dr. TÜLAY ÖZCAN	
15	Course Lecturers:	Prof. Dr. Lütfiye YILMAZ ERSAN	
16	Contact information of the Course Coordinator:	Prof. Dr. Tülay ÖZCAN Bursa Uludağ Üniversitesi Ziraat Fakültesi Gıda Mühendisliği Bölümü	
17	Website:		
18	Objective of the Course:	Objective of the course: It is aimed to give information about the processes applied to milk before cheese production, cheese production, biochemical and rheological changes during ripening and production of traditional and Production of different cheese varieties produced in the world	
19	Contribution of the Course to Professional Development:	The course creates awareness and knowledge about the cheese industry in students.	
20	Learning Outcomes:		
		1	Informing about the properties of milk to be used in cheese production, applied heat treatment and alternative non thermal methods
		2	Informing about the starter cultures used in production and cheese microbiology
		3	Informing about the biochemical reactions during cheese ripening and acceleration ripening methods
		4	Informing about the new technologies used in cheese production
		5	Informing about the factors affecting cheese quality
		6	Informing about the production of triditional and different cheese varieties produced in the world
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21	Course Content:		
	Course Content:		

Week	Theoretical	Practice
1	Milk used in cheese production and its properties	
2	Heat treatment and non- thermal technologies in cheese production	
3	Coagulation mechanism of milk	
4	Starter cultures in production and cheese microbiology	
5	Biochemical reactions during cheese ripening	
6	Acceleration cheese ripening methods	
7	Importance and methods of salting in cheese	
8	Use of new technologies in cheese production (membrane separation techniques, high pressure applications etc.)	
9	Dietary cheese production (low fat / low salt, vegan cheese production)	
10	Cheese rheology and texture	
11	Factors affecting cheese quality	
12	Production of traditional cheeses 1	
13	Production of traditional cheeses 2	
14	Production of different cheese varieties produced in the world	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	2.00	28.00
Homeworks	4	15.00	60.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	1	50.00	50.00
Total Work Load			180.00
Total work load/ 30 hr			6.00
ECTS Credit of the Course			6.00

TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Quiz	0	0.00
Home work-project	3	50.00
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		Homework is given and a final exam is made.

24	**ECTS / WORK LOAD TABLE**

Lewis, John Elwyn, 198? : Cheese starters : development and application of the lewis system, London.

Maraş.

Inc. Gaithersburg, Maryland,

Microbiology, Volume 1, Third Edition: General Aspects

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	5	5	4	4	4	4	3	0	0	0	0	0	0	0	0	0
ÖK2	5	5	4	4	3	4	3	0	0	0	0	0	0	0	0	0
ÖK3	5	5	4	4	3	4	3	0	0	0	0	0	0	0	0	0
ÖK4	5	5	4	4	3	4	3	0	0	0	0	0	0	0	0	0
ÖK5	5	5	4	4	3	4	3	0	0	0	0	0	0	0	0	0
ÖK6	5	5	4	4	4	4	4	0	0	0	0	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**			