	ALCOHOLIC	BEVE	RAGES TECHNOLOGY							
1	Course Title:	ALCOH	DLIC BEVERAGES TECHNOLOGY							
2	Course Code:	GSD422	GSD4222-S							
3	Type of Course:	Optional	Optional							
4	Level of Course:		First Cycle							
5	Year of Study:	4								
6	Semester:	8								
7	ECTS Credits Allocated:	3.00								
8	Theoretical (hour/week):	2.00								
9	Practice (hour/week):	2.00								
10	Laboratory (hour/week):	0								
11	Prerequisites:	None	None							
12	Language:	Turkish								
13	Mode of Delivery:	Face to	face							
14	Course Coordinator:	Prof. Dr.	OZAN GÜRBÜZ							
15	Course Lecturers:									
16	Contact information of the Course Coordinator:	16059 G Tel: 022 Fax: 022	Üniversitesi Ziraat Fakültesi Gıda Mühendisliği Bölümü Görükle/Bursa 24 2941500 24 2941402 1: ozang@uludag.edu.tr							
17	Website:									
4.0			ucing ethyl alcohol production from different substances ing about sanitation of winery, microbiota of grape and wine, on and production of alcoholic beverages							
18	Objective of the Course:	 Informi 	ng about sanitation of winery, microbiota of grape and wine,							
18 19	Contribution of the Course to Professional Development:	Informi distillatio	ng about sanitation of winery, microbiota of grape and wine,							
	Contribution of the Course to	Informi distillatio	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rse creates knowledge in the field of the alcoholic							
19	Contribution of the Course to Professional Development:	Informi distillatio	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rse creates knowledge in the field of the alcoholic							
19	Contribution of the Course to Professional Development:	Informi distillation The cou beverag	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rse creates knowledge in the field of the alcoholic es industry in students. The students will be able to explain the production of ethyl alcohol and alcoholic beverages The students will be able to explain grape and wine microbiota and distillation process							
19	Contribution of the Course to Professional Development:	Informi distillation The cou beverag	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rse creates knowledge in the field of the alcoholic es industry in students. The students will be able to explain the production of ethyl alcohol and alcoholic beverages The students will be able to explain grape and wine							
19	Contribution of the Course to Professional Development:	 Informi distillation The course beverage 1 2 3 4 	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rse creates knowledge in the field of the alcoholic es industry in students. The students will be able to explain the production of ethyl alcohol and alcoholic beverages The students will be able to explain grape and wine microbiota and distillation process							
19	Contribution of the Course to Professional Development:	 Informi distillation The coubeverage 1 2 3 4 5 	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rse creates knowledge in the field of the alcoholic es industry in students. The students will be able to explain the production of ethyl alcohol and alcoholic beverages The students will be able to explain grape and wine microbiota and distillation process							
19	Contribution of the Course to Professional Development:	 Informi distillation The course beverage 1 2 3 4 5 6 	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rse creates knowledge in the field of the alcoholic es industry in students. The students will be able to explain the production of ethyl alcohol and alcoholic beverages The students will be able to explain grape and wine microbiota and distillation process							
19	Contribution of the Course to Professional Development:	 Informi distillation The course beverage 1 2 3 4 5 6 7 	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rse creates knowledge in the field of the alcoholic es industry in students. The students will be able to explain the production of ethyl alcohol and alcoholic beverages The students will be able to explain grape and wine microbiota and distillation process							
19	Contribution of the Course to Professional Development:	 Informi distillation The course beverage 1 2 3 4 5 6 7 8 	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rse creates knowledge in the field of the alcoholic es industry in students. The students will be able to explain the production of ethyl alcohol and alcoholic beverages The students will be able to explain grape and wine microbiota and distillation process							
19	Contribution of the Course to Professional Development:	 Informi distillation The coubeverage 1 2 3 4 5 6 7 8 9 	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rse creates knowledge in the field of the alcoholic es industry in students. The students will be able to explain the production of ethyl alcohol and alcoholic beverages The students will be able to explain grape and wine microbiota and distillation process							
19 20	Contribution of the Course to Professional Development: Learning Outcomes:	 Informi distillation The course beverage 1 2 3 4 5 6 7 8 	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rse creates knowledge in the field of the alcoholic es industry in students. The students will be able to explain the production of ethyl alcohol and alcoholic beverages The students will be able to explain grape and wine microbiota and distillation process							
19	Contribution of the Course to Professional Development:	 Informi distillation The coubeverage 1 2 3 4 5 6 7 8 9 10 	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rse creates knowledge in the field of the alcoholic es industry in students. The students will be able to explain the production of ethyl alcohol and alcoholic beverages The students will be able to explain grape and wine microbiota and distillation process The students will be able to explain sanitation of winery							
19 20	Contribution of the Course to Professional Development: Learning Outcomes:	 Informi distillation The coubeverage 1 2 3 4 5 6 7 8 9 10 	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rese creates knowledge in the field of the alcoholic es industry in students. The students will be able to explain the production of ethyl alcohol and alcoholic beverages The students will be able to explain grape and wine microbiota and distillation process The students will be able to explain sanitation of winery							
19 20	Contribution of the Course to Professional Development: Learning Outcomes:	 Informi distillation The coubeverage 1 2 3 4 5 6 7 8 9 10 	ng about sanitation of winery, microbiota of grape and wine, in and production of alcoholic beverages rse creates knowledge in the field of the alcoholic es industry in students. The students will be able to explain the production of ethyl alcohol and alcoholic beverages The students will be able to explain grape and wine microbiota and distillation process The students will be able to explain sanitation of winery							

3 Distillation Quality analysis in beer, total acidity and artificial foam (saponin) substance analysis 4 Raki, gin, cognac and vodka production Quality analysis in beer, total acidity and artificial foam (saponin) substance analysis 5 Whiskey, rum and tequila production Total acidity and specific gravity analysis in cider production, apple juice and cider 6 Whiskey, rum and tequila production Total acidity and specific gravity analysis in cider production, apple juice and cider 7 Liqueur production Total acid and volatile acid analysis in wine 8 Wine production Total acid and volatile acid analysis in wine 9 Champagne and cider production Alcohol determination methods and alcohol determinati in cider 10 Beer production Alcohol determination methods and alcohol determinati in cider 11 Beer production CO2 analysis techniques in Cider and beer 12 Microbiota of grape and wine CO2 analysis techniques in Cider and beer 13 Spoilage of wine Fruity vodka production and raki production, quality analysis and analysis of anise amount 14 Spoilage of wine Kilig O. 1996. Alcoholic Beverages Technology. Ulude University Edition, Bursa Activites Number Duration (hour) Total Work Mathematical Mathem	2		Ethanol production from different Wine production and total and free SO2 analysis carbohydrate sources															
S Whiskey, rum and tequila production production, apple juice and cider 6 Whiskey, rum and tequila production production, apple juice and cider 7 Liqueur production 8 Wine production 9 Champagne and cider production 9 Champagne and cider production 9 Champagne and cider production 10 Beer production 11 Beer production 12 Microbiota of grape and wine 13 Spoilage of wine 14 Spoilage of wine 15 Fruity vodka production and raki production, quality analysis and analysis of anise amount 14 Spoilage of wine 15 Fruity vodka production and raki production, quality analysis and analysis of anise amount 14 Spoilage of wine 15 Fruity vodka production and raki production, quality analysis and analysis of anise amount 14 Spoilage of wine 15 Vintersity Edition, Bursa Activites Number Duration (hour) 10 Everset 3 11 2 fa00 2.00 28.00 Bereswet/shardpiesperation 0 <th>3</th> <th>-</th> <th>-</th> <th></th> <th></th> <th>0</th> <th></th> <th></th> <th></th> <th></th> <th colspan="8">Quality analysis in beer, total acidity and artificial foaming (saponin) substance analysis</th>	3	-	-			0					Quality analysis in beer, total acidity and artificial foaming (saponin) substance analysis							
Production, apple juice and cider 6 Whiskey, rum and tequila production Total acidity and specific gravity analysis in cider production, apple juice and cider 7 Liqueur production Total acid and volatile acid analysis in wine 8 Wine production Total acid and volatile acid analysis in wine 9 Champagne and cider production Alcohol determination methods and alcohol determination in cider 10 Beer production Alcohol determination methods and alcohol determination in cider 11 Beer production CO2 analysis techniques in Cider and beer 12 Microbiota of grape and wine CO2 analysis techniques in Cider and beer 13 Spoilage of wine Fruity vodka production and raki production, quality analysis and analysis of anise amount 14 Spoilage of wine Fruity vodka production and raki production, quality analysis and analysis of anise amount 22 Textbooks, References and/or Other Kilic O. 1996. Alcoholic Beverages Technology. Uluda University Edition, Bursa Activites Number Duration (hour) Total Voc Load (hour) Practicals/Labs 14 2.00 28.00 Predicts 3 109.00 0.00 0.00 Micremerseration <t< th=""><th>4</th><th>Raki,</th><th colspan="7">aki, gin, cognac and vodka production</th><th></th><th colspan="8">Quality analysis in beer, total acidity and artificial foaming</th></t<>	4	Raki,	aki, gin, cognac and vodka production								Quality analysis in beer, total acidity and artificial foaming							
production, apple juice and cider 7 Liqueur production Total acid and volatile acid analysis in wine 8 Wine production Total acid and volatile acid analysis in wine 9 Champagne and cider production Alcohol determination methods and alcohol determination in cider 10 Beer production Alcohol determination methods and alcohol determination in cider 11 Beer production CO2 analysis techniques in Cider and beer 12 Microbiota of grape and wine CO2 analysis techniques in Cider and beer 13 Spoilage of wine Fruity vodka production and raki production, quality analysis and analysis of anise amount 14 Spoilage of wine Kill; O. 1996. Alcoholic Beverages Technology. Ulude University Edition, Bursa Activites Number Duration (hour) Total Work Load (hour) Middement&arm 1 25/40 2.00 28.00 Preaticals/Labs 14 2.00 28.00 28.00 Predects 3 100.00 0.00 0.00 Middement&arm 1 25/40 2.00 28.00 Predects 3 100.00 0.00 0.00 0.00	5	Whis	/hiskey, rum and tequila production							To ^r pro	tal acio ductic	dity and on, app	d specif le juice	ic gravi and cic	ity ana der	lysis in	cider	
8 Wine production Total acid and volatile acid analysis in wine 9 Champagne and cider production Alcohol determination methods and alcohol determination in cider 10 Beer production Alcohol determination methods and alcohol determination in cider 11 Beer production CO2 analysis techniques in Cider and beer 12 Microbiota of grape and wine CO2 analysis techniques in Cider and beer 13 Spoilage of wine Fruity vodka production and raki production, quality analysis and analysis of anise amount 14 Spoilage of wine Fruity vodka production and raki production, quality analysis and analysis of anise amount 22 Textbooks, References and/or Other Kilic O. 1996. Alcoholic Beverages Technology. Uluda University Edition, Bursa Activites Number Duration (hour) Total Work Load (hour) Predectals/Labs 14 2.00 28.00 Predectals/Labs 14 2.00 28.00 Predectals 3 100-00 0.00 0.00 Homeworks 1 5.00 5.00 5.00 Predects 3 100-00 0.00 0.00 0.00 Mideement@atam 1	6	Whis									Total acidity and specific gravity analysis in cider							
9 Champagne and cider production Alcohol determination methods and alcohol determination in cider 10 Beer production Alcohol determination methods and alcohol determination in cider 11 Beer production CO2 analysis techniques in Cider and beer 12 Microbiota of grape and wine CO2 analysis techniques in Cider and beer 13 Spoilage of wine Fruity vodka production and raki production, quality analysis and analysis of anise amount 14 Spoilage of wine Fruity vodka production and raki production, quality analysis and analysis of anise amount 22 Textbooks, References and/or Other Materials: Killç O. 1996. Alcoholic Beverages Technology. Uluda University Edition, Bursa Activites Number Duration (hour) Total Work Load (hour) Practicals/Labs 14 2.00 28.00 Befinetwey/sm@greeberation 0 0/94 0.50 7.00 Homeworks 1 5.00 5.00 Frideletts 3 100.00 0.00 Midterm exams 1 0.00 0.00 0.00 10.00 0.00 0.00 Frideletts 3 100.00 0.00 10.00 0.00 0.00	7	Lique	Liqueur production Total acid and volatile acid analysis in wine															
in cider 10 Beer production 11 Beer production 12 Microbiota of grape and wine 13 Spoilage of wine 14 Spoilage of wine 15 Spoilage of wine 14 Spoilage of wine 15 Spoilage of wine 16 Fruity vodka production and raki production, quality analysis and analysis of anise amount 14 Spoilage of wine 17 Textbooks, References and/or Other Klirç O. 1996. Alcoholic Beverages Technology. Uluda University Edition, Bursa Activites Number Duration (hour) Total Work Load (hour) Practicals/Labs 14 2.00 28.00 Practicals/Labs 14 5.00 5.00 Homeworks 1 5.00 5.00 Field Studies 0 0.00 0.00 Others 1 10.00 10.00 Midterm Exams 10 0.00 0.00 Fredgetcts 3 100.00 10.00 Fredgetcts 3 100.00 10.00 Fredg	8	Wine	Vine production							To	tal acio	d and v	volatile a	acid ana	alysis i	in wine		
in cider 11 Beer production CO2 analysis techniques in Cider and beer 12 Microbiota of grape and wine CO2 analysis techniques in Cider and beer 13 Spoilage of wine Fruity volka production and raki production, quality analysis of anise amount 14 Spoilage of wine Fruity volka production and raki production, quality analysis and analysis of anise amount 12 Textbooks, References and/or Other Killç O. 1996. Alcoholic Beverages Technology. Uluda University Edition, Bursa Activites Number Duration (hour) Total Work Load (hour) Practicals/Labs 14 2.00 28.00 Practicals/Labs 14 2.00 28.00 Homeworks 1 5.00 5.00 Field Studies 3 109.00 0.00 0.00 Midesender exams 1 10.00 10.00 10.00 Midesender exams 1 10.00 10.00 10.00 Practicals/Labs 1 10.00 10.00 10.00 Homeworks 1 5.00 5.00 10 Field Studies 0 0.00 0.00 10.00	9	Chan	hampagne and cider production								letermi	nation I	method	s and a	alcohol	determir	nation	
12 Microbiota of grape and wine CO2 analysis techniques in Cider and beer 13 Spoilage of wine Fruity vodka production and raki production, quality analysis and analysis of anise amount 14 Spoilage of wine Fruity vodka production and raki production, quality analysis and analysis of anise amount 14 Spoilage of wine Fruity vodka production and raki production, quality analysis and analysis of anise amount 22 Textbooks, References and/or Other Materials: Kiliç O. 1996. Alcoholic Beverages Technology. Uluda University Edition, Bursa Activites Number Duration (hour) Total Wor Load (hour) Practicals/Labs 14 2.00 28.00 Practicals/Labs 14 2.00 28.00 Beffrequeridatam 1 25 7.00 Homeworks 1 5.00 5.00 Prestects 3 109.00 0.00 0.00 Middem exams 1 10.00 10.00 0.00 Others 0 0.00 0.00 5.00 Fredsects 1 10.00 10.00 0.00 Others 0 0.00 0.00 10.00	10	Beer	3eer production									letermi	nation I	method	s and a	alcohol	determir	nation
13 Spoilage of wine Fruity vodka production and raki production, quality analysis and analysis of anise amount 14 Spoilage of wine Fruity vodka production and raki production, quality analysis and analysis of anise amount 12 Textbooks, References and/or Other Materials: Kiliç O. 1996. Alcoholic Beverages Technology. Uluda University Edition, Bursa Activities Number Duration (hour) Total Work Load (hour) Practicals/Labs 14 2.00 28.00 Practicals/Labs 14 2.00 28.00 Practicals/Labs 14 2.00 28.00 Practicals/Labs 14 2.00 28.00 Practicals/Labs 14 0.50 7.00 Homeworks 1 5.00 5.00 Pretriects 3 109.00 0.00 0.00 Midterm exams 1 10.00 10.00 10.00 Others 0 0.00 0.00 93.00 Others 0 0.00 15.00 15.00 Total Work Load 1 10.00 15.00 15.00 Total Work Load 1 10.00 15	11	Beer	Beer production							CC)2 ana	lysis te	chniqu	es in Ci	der an	nd beer		
analysis and analysis of anise amount 14 Spoilage of wine Fruity vocka production and raki production, quality analysis and analysis of anise amount 22 Textbooks, References and/or Other Materials: Activites Kilç O. 1996. Alcoholic Beverages Technology. Uluda University Edition, Bursa Activites Number Duration (hour) Total Work Load (hour) Practicals/Labs 14 2.00 28.00 Practicals/Labs 14 2.00 28.00 Bimenutgy kinklopikejseration 0 94. 0.50 7.00 Homeworks 1 5.00 5.00 5.00 Freiglects 3 109.00 0.00 0.00 Freiglets 3 109.00 0.00 0.00 Others 0 0.00 0.00 0.00 Others 0 0.00 15.00 15.00 Total Work Load 1 100.00 15.00 15.00 Contribution 1 100.00 15.00 15.00 Total Work Load 1 100.00 15.00 15.00 Contrr	12	Micro	Microbiota of grape and wine							CC)2 ana	lysis te	chniqu	es in Ci	der an	d beer		
analysis and analysis of anise amount 22 Textbooks, References and/or Other Materials: Activites Kiliç O. 1996. Alcoholic Beverages Technology. Uluda University Edition, Bursa Activites Number Duration (hour) Total Work Load (hour) Practicals/Labs 14 2.00 28.00 Practicals/Labs 14 2.00 28.00 Beff Studies 14 2.00 28.00 Homeworks 1 5.00 7.00 Homeworks 1 5.00 5.00 Field Studies 0 0.00 0.00 Midderm exams 1 100.00 10.00 Others 0 0.00 15.00 15.00 Total Work Load 1 10.00 10.00 10.00 Total Work Load 1 10.00 15.00 15.00 Total Work Load 1	13	Spoil	Spoilage of wine														, quality	
Materials: University Edition, Bursa Activites Number Duration (hour) Total Wor Middemendation 1 25/40 2.00 28.00 Practicals/Labs 14 2.00 28.00 Practicals/Labs 14 2.00 28.00 Beinstong/Entropy/Entopy/Entropy/Entropy/Entropy/Entropy/Entropy/Entopy	14	Spoil	poilage of wine							Fruity vodka production and raki production, quality								
Activites Number Duration (hour) Total Wor Midderetidatam 1 25140 2.00 28.00 Practicals/Labs 14 2.00 28.00 Semstwsy knetgeretidatam 0 0 994 0.50 7.00 Homeworks 1 5.00 5.00 Presidents 3 100.00 0.00 0.00 Field Studies 0 0.00 0.00 0.00 Midderm exams 1 10.00 10.00 10.00 Others 0 0.00 0.00 93.00 Contrait Work Load 1 100.00 15.00 15.00 Contribution of the Course 3.00 3.00 3.00												dag						
Practicals/Labs 14 2.00 28.00 Semst Way Fanelogies paration 0 0 94 0.50 7.00 Homeworks 1 5.00 5.00 5.00 5.00 Presidents 3 100.00 0.00 0.00 0.00 Field Studies 0 0.00 0.00 0.00 0.00 Midterm exams 1 10.00 10.00 10.00 Others 0 0.00 15.00 15.00 Total Work Load 93.00 93.00 93.00 93.00 Total Work Load 1 100.00 15.00 15.00 Total Work Load 1 100.00 15.00 15.00 Total Work Load 1 100.00 15.00 3.10 25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS 3.00							<u> </u>				1			Total Work Load (hour)				
Semetion 0<	MidtorenicExtam 1						251	25140			2.00			28.00				
Homeworks 1 5.00 5.00 Projects 3 109.00 0.00 0.00 Field Studies 0 0.00 0.00 0.00 Midterm exams 1 10.00 10.00 0.00 Others 0 0.00 0.00 10.00 Others 0 0.00 15.00 15.00 Total Work Load 100.00 15.00 15.00 15.00 Total Work Load 93.00 93.00 93.00 93.00 Conserver 3.00 3.00 3.00 3.00 25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS 3.00	Practic	racticals/Labs								1	14			2.00			28.00	
Projects 3 100.00 0.00 0.00 Field Studies 0 0.00 0.00 0.00 Midterm exams 1 10.00 10.00 10.00 Others 0 0.00 0.00 10.00 Others 0 0.00 0.00 10.00 Total Work Load 100.00 15.00 15.00 15.00 Total Work Load 93.00 93.00 93.00 100 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS 3.00 3.00	Beinstway know o							0.0	0 99									
Field Studies 0 0.00 0.00 Midterm exams 1 10.00 10.00 Others 0 0.00 0.00 Others 0 0.00 0.00 Total Work Load 93.00 93.00 93.00 Total Work Load 93.00 93.00 93.00 Total Work Load/ 30 hr 1 1 10 Total Work Load/ 30 hr 1 3.10 3.10 Total Work Load/ 30 hr 1 3.00 3.00 25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS 3.00	Homew	neworks																
Midterm exams 1 10.00 Others 0 0.00 0.00 Others 0 0.00 0.00 Fital Exams 100.00 15.00 15.00 Total Work Load 93.00 Fortal Work load/30 hr 100.00 15.00 Course 100.00 15.00 15.00 Course 100.00 15.00 15.00 Course 100.00 15.00 15.00 Course 100.00 15.00 15.00 Contrait Work load/30 hr 100.00 15.00 13.10 Contrait Work load/30 hr 100.00 13.10 100.00 Contrait Work load/30 hr 100.00 13.00 100.00 Contraited Work load 3.10 3.10 Contraited Work load 3.00 3.00	₽₽₫ ₩ect	Population 3								100	100.00							
Others00.000.00Frial Exams100.0015.0015.00Total Work Load93.00Total Work load/ 30 hr100.0015.00Total Work load/ 30 hr100.0013.00Total Work load/ 30 hr100.0013.00Course3.10ECTS Credit of the Course3.0025CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS										0	0							
Frital Exams 100.00 15.00 15.00 Total Work Load 93.00 Total Work load/ 30 hr 100.00 93.00 Total Work load/ 30 hr 100.00 15.00 Total Work load/ 30 hr 100.00 100.00 Total Work load/ 30 hr 100.00 100.00 Total Work load/ 30 hr 100.00 100.00 ECTS Credit of the Course 3.00 3.00 25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS	Midtern	m exams							1	1								
Total Work Load 93.00 Total Work Load 93.00 Total Work Load/ 30 hr 10.00 Total Work Load/ 30 hr 3.10 Total Work Load/ 30 hr 3.00 24 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS										-			0.00					
Course Tallerative evaluation system is applied. 3.10 Contract Contract <th></th> <th colspan="7"></th> <th>104</th> <th colspan="3">10p.00</th> <th colspan="3">15.00</th> <th colspan="2"></th>									104	10p.00			15.00					
25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS									a relative evaluation system is applied.						_			
25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS	- 24																	
QUALIFICATIONS	ECTS	TS Credit of the Course							3.00									
PQ1 PQ2 PQ3 PQ4 PQ5 PQ6 PQ7 PQ8 PQ9 PQ1 PQ11 PQ12 PQ1 PQ14 PQ15 P	25																	
		Р	'Q1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9		PQ11	PQ12		PQ14	PQ15	PQ16
ÖK1 5 4 3 5 3 4 2 3 4 5 5 0	ÖK1	5		4	3	5	3	4	2	3	4	5	5	0	0	0	0	0
ÖK2 3 5 4 4 5 5 4 5 2 4 5 0 0 0 0 0	ÖK2	3	,	5	4	4	5	5	4	5	2	4	5	0	0	0	0	0
ÖK3 4 2 3 5 4 5 3 4 4 4 3 0 0 0 0 0	ÖK3	4		2	3	5	4	5	3	4	4	4	3	0	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications				l	-0: L	.earn	nina C) biec	tive	s F	Q: P	roara	m Qu	alifica	tions	ـــــــــــــــــــــــــــــــــــــ	1	1

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