DESIGN OF IRRIGATION MACHINERY									
1	Course Title:	DESIGN	OF IRRIGATION MACHINERY						
2	Course Code:	BSM6014							
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):	2.00							
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:	Prof. Dr. ALİ VARDAR							
15	Course Lecturers:	ҮОК							
16	Contact information of the Course Coordinator:	e-posta: dravardar@uludag.edu.tr Telefon: 0 224 2941605 Adres: Uludağ Üniversitesi, Ziraat Fakültesi, Biyosistem Mühendisliği Bölümü, Görükle Kampüsü, 16059, Nilüfer/BURSA							
17	Website:								
18	Objective of the Course:	The aim of the course is to enable the student to design irrigation machines.							
19	Contribution of the Course to Professional Development:	It contributes to the identification and design of irrigation machines / systems to be applied in agricultural areas.							
20	Learning Outcomes:								
		1	To understand the importance of irrigation concept;						
		2	Understanding the importance of the concept of machine design;						
		3	To be able to design irrigation machines						
		4							
		5							
		6							
		7							
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		9							
		10							
21	Course Content:								
		Co	burse Content:						
	Theoretical		Practice						
1	Physical properties of water, flow typ properties		Physical properties of water, flow types and properties						
2	Equivalent pipe length and total losse	es	Equivalent pipe length and total losses						
3	Planning the pipeline	-4	Planning the pipeline						
4	Working principles and classification centrifugal pumps	of	Centrifugal pump application						

	1															
5		al thrust and Centrifugal pump parts Centrifugal pump application														
6	Theoretical principles in centrifugal pumps						Pro	blem	solutio	ns						
7	Cavitation and its characteristics						Pro	Problem solutions								
8	Selection and operation in the pumping plant. Selection application in the pumping plant						t. Pro	Problem solutions								
9	Determining the centrifugal pump type					Sa	ntrifüj	pompa	ı uygula	aması						
10	Calculation of pump shaft power and diameter						Pro	Problem solutions								
11	Sizing of pump impeller - Determination of impeller inlet conditions						Pu	Pumping pump calculation example								
12	Sizing of pump impeller - Determination of impeller inlet conditions						Pu	Pumping pump calculation example								
13	Drawing the impeller						Dra	awing	the imp	oeller						
14	Checking the diffuser requirement, determining the snail size						Pu	Pumping pump calculation example								
22	Textbooks, References and/or Other Materials:						Ün 2. (Kita 158 3. (Keskin K., Güner M., 2002, Sulama Makinaları, Ankara Üniversitesi Ziraat Fakültesi, Yayın No: 1524, Ankara. Güner M., 2011, Sulama Makinaları Yardımcı Ders Kitabı, Ankara Üniversitesi Ziraat Fakültesi, Yayın No: 1585, Ankara. Güner M., Keskin R., 2012, Sulama Makinaları, Ankara Üniversitesi Ziraat Fakültesi, Yayın No: 1587, Ankara. 								
23	Asses	nent														
TERM L	EARNI	NG ACT	IVITIES	6		N	IUMBE	E WE	IGHT							
Activit	Activites				1	Number			Dura	Duration (hour)			Total Work Load (hour)			
Homesetical-project 0					0.0	0.00			2.00		28.00					
Practic	ticals/Labs						1	14			2.00			28.00		
Setastu	tastudy and preperation 1						101	100400			5.00			70.00		
	eworks						4	4			10.00			40.00		
Project	ess Grade CIS							0			0.00			0.00		
Field S	Studies						C	0			0.00			0.00		
Møta err	m exams						100	100.00			0.00			0.00		
Others	3						0	0			0.00	0.00			0.00	
Fourse	zams						10	10.0%.			10.00	10.00			10.00	
Total V	Work Load													176.00		
Total w	work load/ 30 hr													5.87		
ECTS	Credit of the Course												6.00			
25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS																
	PG	1 PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ1 0	PQ11	PQ12	PQ1 3	PQ14	PQ15	PQ16
ÖK1	3	2	3	4	2	3	4	3	4	3	4	3	0	0	0	0
ÖK2	2	3	4	5	3	2	3	4	3	4	2	3	0	0	0	0
ÖK3	2	3	5	4	2	3	3	4	3	2	3	3	0	0	0	0
				earr	nina () bier	tive	s P	PQ: P	roara	m Qu	alifica	tions	ـــــــــــــــــــــــــــــــــــــ	1	<u> </u>
LO: Learning Objectives PQ: Program Qualifications																

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