PRESSURIZED IRRIGATION SYSTEMS AND METHODS

1	Course Title:	PRESSURIZED IRRIGATION SYSTEMS AND METHODS	
2	Course Code:	BSM5006	
3	Type of Course:	Optional	
4	Level of Course:	Second 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:	None	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Doç.Dr. HAYRETTİN KUŞCU	
15	Course Lecturers:	-	
16	Contact information of the Course Coordinator:	e-posta: bncandogan@uludag.edu.tr Telefon: 0 224 2941628 Adres: Uludağ Üniversitesi, Ziraat Fakültesi, Biyosistem Mühendisliği Bölümü, Görükle Kampüsü, 16059, Nilüfer/BURSA	
17	Website:		
18	Objective of the Course:	Course objectives are to teach individual pressurized irrigation systems and village bases irrigation systems. However how to transform open channel irrigation system to pressurized irrigation systems	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	To desing the individual drip and srinkler irrigation systems
		2	To evaluate management systems of pressurized irrigation system accoarding to the water resources, and to choose the operating system.
		3	To decide factors to determine systems elements
		4	To compare the investment and operating costs for irrigation systems
		5	To compare the system elements accoarding to the quality
		6	To explain the pressure regulation elements
		7	To question the applicability of different methods of irrigation operating for collective systems
		8	To decide the operating arrangement and to design the pomp groups or to choose the pump for pressured irrigation systems
		9	To compare the investment and operating costs using linear programming
		10	
21	Course Content:		

Course Content:

Week	Theoretical	Practice

1	Design of individual drip and sprinkler systems	
2	Explanation of partial drip irrigation	
3	Explanations of water distrubiting methods	
4	Basic hydolic and economic equations	
5	Explanation of open channel flow and open channel geometry	
6	Accoarding to economic parameters comperation of pressurized irrigation systems	
7	Accoarding to operation methods (such as demand and rotation) to design of pressurized irrigation systems	
8	The use of optimizition techniques	
9	Minimization of investment	
10	Quantities and estimates of irigation systems	
11	The sample solution 1	
12	The sample solution 2	
13	The sample solution 3	
14	The sample solution 4	

22	Textbooks, References and/or Other Materials:	1. Labye Y, Olson M.A., Galand A. And Tsiourtis N. 1988. Design and Optimization of Irrigation Distribution Networks.. FAO Irrigation and Drainage Paper No:44. ROME

23 Assesment				
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	**R**	14	6.00	84.00
Homeworks		2	20.00	40.00
Quiz	0	0.00		
Projects		0	0.00	0.00
Field Studies		0	0.00	0.00
Final Exam				
Midterm exams	1	60.00	0.00	0.00
Others		0	0.00	0.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00	15.00	15.00
Final Exams		1		
Total Work Load				181.00
Contribution of Final Exam to Success Grade		60.00		
Total work load/ 30 hr				6.03
ECTS Credit of the Course				6.00
Measurement and Evaluation Techniques Used in the Course				

24	**ECTS / WORK LOAD TABLE**

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	5	2	2	2	2	2	3	2	2	2	3	0	0	0	0
ÖK2	4	5	4	5	3	3	4	5	3	4	3	4	0	0	0	0
ÖK3	3	4	3	3	3	1	2	2	2	4	2	4	0	0	0	0

ÖK4	4	4	5	3	4	4	3	5	4	5	4	5	0	0	0	0
ÖK5	4	4	3	3	3	2	3	2	4	3	4	4	0	0	0	0
ÖK6	4	4	3	2	2	1	2	2	3	2	4	5	0	0	0	0
ÖK7	5	4	5	5	5	4	4	5	5	5	5	5	0	0	0	0
ÖK8	4	4	2	2	2	1	1	3	4	3	4	4	0	0	0	0
ÖK9	4	4	2	2	2	2	1	3	3	3	3	2	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

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