DESIGN OF SURFACE IRRIGATION SYSTEMS

1	Course Title:	DESIGN OF SURFACE IRRIGATION SYSTEMS
2	Course Code:	BSM3518-S
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	3
6	Semester:	6
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:	-
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç. Dr. BURAK NAZMİ CANDOĞAN
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:	Students will be skillful in designing of surface irrigation systems.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

		1	To use the methods of land leveling project in land preparation for irrigation
		2	To apply knowledge of basic engineering taken from other courses
		3	To choose the most appropriate method of surface irrigation
		4	To size the system components and to design the irrigation system required by the selected surface irrigation method
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21	Course Content:	

Course Content:		
Week	Theoretical	Practice
1	Introduction to surface irrigation systems	
2	Land preparation for irrigation: Land leveling	
3	Land leveling	Least-squares method

4	Land leveling	Symmetric residuals method
5	Infiltration characteristics of soil and net infiltration time	Calculation of net infiltration time
6	Design of uncontrolled flooding and basin irrigation systems	A numerical example for the design of basin irrigation systems
7	Design of border irrigation systems	A numerical example for the design of border irrigation systems
8	Design of furrow irrigation systems	Furrow types and infiltration tests in furrow irrigation
9	Repeating courses and midterm exam	
10	İNGİLİZCE	İNGİLİZCE
11	Design of furrow irrigation systems: Open furrows	Design as open furrow with constant flow
12	Design of furrow irrigation systems: Open furrows	Design as open furrow with variable flow
13	Design of furrow irrigation systems: Closed furrows	A numerical example for the design of closed furrow systems
14	Design of furrow irrigation systems: Closed furrows	A numerical example for the design of closed furrow systems
22	Textbooks, References and/or Other Materials:	1.Yıldırım, O., 2013. Sulama Sistemlerinin Tasarımı (4. Baskı). Ankara Üniversitesi Ziraat Fakültesi, Yayın No: 1594, Ders Kitabı: 546, s: 367. 2.Walker, W.R., Skogerboe, G.V., 1987. Surface Irrigation. Prentice-Hall, Inc., Englewood Cliffs, New Jersey 07632, USA. ISBN: 0-13-877929-5 025, 375 pp.

Activites			Number	Duration (hour)	Total Work Load (hour)
Theoretical	R		14	1.00	14.00
Practicals/Labs			14	2.00	28.00
Self study and preperation	0	0.00	13	1.00	13.00
Homeworks			2	14.00	28.00
Projects	1	60.00	0	0.00	0.00
Field Studies			0	0.00	0.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00	1	3.00	3.00
Others			0	0.00	0.00
Final Exams			1	4.00	4.00
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	5	2	3	2	4	2	2	2	2	2	4	0	0	0	0	0
ÖK2	5	4	4	2	4	2	2	3	2	2	4	0	0	0	0	0
ÖK3	4	4	4	2	5	3	2	4	3	3	4	0	0	0	0	0
ÖK4	4	5	5	4	5	4	4	4	4	4	5	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