IRRIGATION TECHNIQUES

1	Course Title:	IRRIGATION TECHNIQUES
2	Course Code:	SBYZ210
3	Type of Course:	Compulsory
4	Level of Course:	Short Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	2.00
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:	Öğr. Gör. Dr. YILMAZ DORUK
15	Course Lecturers:	Öğr.Gör.Dr.Yılmaz DORUK
16	Contact information of the Course Coordinator:	yzdoruk@uludag.edu.tr, 02242942374, U.Ü.Teknik Bilimler Meslek Yüksekokulu B Blok-Görükle Kampüsü/Bursa
17	Website:	
18	Objective of the Course:	The main inputs of the importance of irrigation in agriculture, teaching techniques, teach the principles and practice.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

	1	Irrigation Definition, history, characteristics, and the importance of the agricultural point of irrigation method, system and project to explain the concepts.
	2	Irrigation in terms of some important soil properties (Soil phases, soil texture, soil structure, specific gravity of soil, soil bulk density, porosity, porosity, saturation, etc.). Understand the forms of expression, and soil moisture.
	3	Statements are important for irrigation (saturation point, field capacity, wilting point, oven dried, etc.). Comprehend, direct and indirect measure of soil moisture.
	4	After calculation of irrigation time and determine the range of plant water consumptions.
	5	To understand the issue of regulation of the parcels of farm and land leveling.
	6	Irrigation practices in the true means by which the garden and the greenhouse environment, characteristics of these methods, be able to comprehend such issues as factors in the choice of method.
	7	To understand the importance of drainage and irrigation of agricultural land drainage problems.To explain the methods of drainage.
	8	Application of irrigation and drainage does not create environmental problems.
	9	
	10	

21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	• Irrigation definition, properties, and agricultural significance. • A short history of irrigation, on the basis of global and country. • Irrigation potential and the ready availability of a special state of Turkey. • Irrigation method, irrigation systems and concepts such as irrigation project.	
2	• Some soil properties are important for irrigation: (Soil phases, soil texture, soil structure, specific gravity of soil, soil bulk density, porosity, porosity, saturation, etc.).Possible to calculate these values in different circumstances.	
3	• Acting within the scope of the subject of irrigation water applied to plant root depth of soil depth. • Calculation of soil moisture and forms of expression. • Important in terms of irrigation soil moisture constants.(Saturation point, field	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	2.00	28.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	2.00	28.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	2	12.00	24.00
Others	0	0.00	0.00
Final Exams	1	10.00	10.00
Total Work Load			90.00
Total work load/ 30 hr			3.00
ECTS Credit of the Course			3.00

	• Taking soil samples.(Impaired, intact examples) tools used for this purpose. methods.Instruments used for this purpose. • Soil-water movement and soil water monthly, seasonal), calculation methods, examples, solutions. concepts. • Irrigation water requirement, irrigation source. factors limit the application) • Types of land leveling, desing methods.	
7	• Surface irrigation methods	
8	Lesson repeat and midterm	
9	• Pressurized irrigation methods, sprinkler irrigation method	
10	• Overhead sprinkler systems, above-ground sprinkler irrigation systems, fogging, tree of six micro-sprinkler, irrigation systems used in greenhouses	
11	• Drip irrigation method	
12	Repeating courses and midterm exam	

13	• Drainage • The importance of irrigation drainage. • Definition and benefits of drainage.	
14	• Irrigated land drainage problems and other agricultural areas. • Drainage methods.	

22	Textbooks, References and/or Other Materials:	• Öğr.Gör.Dr. Arzu Mor Sulama Tekniği dersi sunum notları. (Basılmamış) • Güngör,Y., Erözel,A.Z. ve Yıldırım O. Sulama. Ankara Üniversitesi Ziraat Fakültesi Yayınları Yayın No: 1443 Ders Kitabı No: 424 Ankara-2010. • Güngör,Y., Yıldırım, O., 1980. Tarla Sulama Sistemleri. Ankara Üniversitesi Ziraat Fakültesi Yayınları Yayın No: 1322 Ankara. • Yıldırım O., 1996. Sulama Sistemleri II. Ankara Üniversitesi Yayınları. Ankara. • Demir A.O., Drenaj ve Arazi Islahı. Uludağ Üniversitesi Ders Kitabı No:86 Bursa-2001. • Yıldırım O., 2008. Sulama Sistemlerinin Tasarımı. Ankara Üniversitesi Ziraat Fakültesi Yayınları Yayın No: 1565 Ders Kitabı No: 518 Ankara-2008.

23 Assesment

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	2	40.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	3	100.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00
Total		100.00
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	4	4	4	4	5	3	3	5	3	5	5	3	1	1
ÖK2	3	5	1	3	4	4	5	2	3	5	4	5	5	3	4	1
ÖK3	3	5	1	3	2	2	5	1	3	5	3	5	5	1	1	1
ÖK4	3	5	3	5	4	4	5	2	3	5	1	5	5	1	1	2
ÖK5	3	5	1	2	4	4	5	4	3	5	4	5	5	1	5	1
ÖK6	3	5	5	3	4	4	5	5	3	5	3	5	5	2	3	1

ÖK7	3	5	1	1	4	4	5	4	3	5	2	5	5	1	2	1
ÖK8	3	5	4	3	4	4	5	4	3	5	3	5	5	1	3	1

LO: Learning Objectives PQ: Program Qualifications

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