SURVEYING

1	Course Title:	SURVEYING	
2	Course Code:	BSM1502	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	2	
6	Semester:	4	
7	ECTS Credits Allocated:	4.00	
8	Theoretical (hour/week):	1.00	
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:	Doç. Dr. MÜGE KİRMİKİL	
15	Course Lecturers:	Yok	
16	Contact information of the Course Coordinator:	e-posta: muge@uludag.edu.tr Adres: B.U.Ü. Ziraat Fakültesi Biyosistem Mühendisliği Bölümü Görükle/Bursa Telefon: 0.224.2941623	
17	Website:		
18	Objective of the Course:	Course objectives are to give the student a basic understanding surveying measurement procedures, and basic principles for using instruments, to show agricultural land measurement techniques.	
19	Contribution of the Course to Professional Development:	Course objectives are to give the student a basic understanding surveying measurement procedures	
20	Learning Outcomes:		
		1	learn the basic land surveys which are necessary for data acquisition in agricultural engineering studies, work with basic surveying equipment
		2	understand the basic principles of height measurement, design and conduct those surveys
		3	conduct surface leveling and draw contours
		4	gain skill to interpret topographical maps
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21	Course Content:		

Course Content:

Week	Theoretical	Practice
1	Introduction	Introduction
2	Definition, content, and historical development of Surveying	Definition, content, and historical development of Surveying

3	Units of Measurement and Scale	Measurement Units and Scale
4	Basic surveying equipment Horizontal distance measurement tools and methods	Basic surveying equipment Horizontal distance measurement tools and methods
5	Equipment providing perpendicularity to the line	Equipment providing perpendicularity to the line
6	Area measurements methods	Area measurements methods
7	Area measurement by Planimeter	Area measurement by Planimeter
8	Leveling and Leveling Instruments	Vertical distance measurements
9	Differential and Profile Leveling	Differential and Profile Leveling
10	Repeating courses	Repeating courses
11	Surface Leveling	Surface Leveling
12	Drawing of Contours	Drawing of Contours
13	Map Interpretation	Map Interpretation
14	Global Positioning Systems	Global Positioning Systems
22	Textbooks, References and/or Other Materials:	Ayyıldız, M. 1985. Ölçme Bilgisi, Ankara Üniversitesi Ziraat Fakültesi Yayını N.:952 Yüksel, A.N., 1991. Ölçme Bilgisi, Trakya Üniversitesi, Tekirdağ Ziraat Fakültesi, Yayın no:112, Tekirdağ. Balcı, A. ve M. Avcı, 1998. Ölçme Bilgisi-1, Ege Üniversitesi, Ziraat Fakültesi yayınları, No:532, Bornova, İzmir. Bilgisi, Dora Yayınları
23	Assesment	

TERM LEARNING ACTIVITIES	NUMBER	WEIGHT
Quiz	1	20.00
Midterm Exam	1	60.00
Final Exam	1	40.00
Contribution of Term (Year) Learning Activities to Success Grade		40.00
Contribution of Final Exam to Success Grade		60.00

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	1.00	14.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	5	3.00	15.00
Homeworks	0	0.00	0.00
Projects	0	0.00	0.00
Field Studies	3	2.00	6.00
Midterm exams	1	20.00	20.00
Others	6	3.00	18.00
Final Exams	1	20.00	20.00
Total Work Load			141.00
Total work load/ 30 hr			4.03
ECTS Credit of the Course			4.00

Measurement and Evaluation Techniques Used in the Course	The effect of the midterm exam on the course-passing grade is 40%, the effect of the final exam on the course-passing grade is 60%.

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	0	0	0	4	2	1	1	0	1	1	0	0	0	0	0	0
ÖK2	2	0	2	4	3	2	1	0	1	0	0	0	0	0	0	0

ÖK3	2	0	2	4	2	2	1	0	1	0	0	0	0	0	0	0
ÖK4	2	0	2	4	2	2	1	0	1	0	0	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**