EXPERIMENTAL METHODS IN AGRICULTURAL MACHINERY

1	Course Title:	EXPERIMENTAL METHODS IN AGRICULTURAL MACHINERY
2	Course Code:	BSM4814-S
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	4
6	Semester:	8
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:	No
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. Halil Ünal
15	Course Lecturers:	Yok
16	Contact information of the Course Coordinator:	Prof. Dr. Halil ÜNAL e-posta : hunal@uludag.edu.tr Telefon: 0 224 2941607 Adres: Bursa Uludağ Üniversitesi, Ziraat Fakültesi, Biyosistem Mühendisliği Bölümü, Görükle Kampüsü, 16059, Nilüfer/BURSA
17	Website:	
18	Objective of the Course:	Agricultural machinery performance, productivity levels, production quality, national and international standards and conformity of agricultural techniques, to teach the scientific and technical findings.
19	Contribution of the Course to Professional Development:	At the end of this course, the student; 1. The student makes experiments on agricultural machinery. 2. Can provide consultancy on the experiments of companies. 3. Can work as an expert in various sectors. 4. Have enough knowledge to work as a consultant. 5. Can make necessary field and laboratory tests for national and international agricultural machinery.
20	Learning Outcomes:	

	1	Improve work quality and efficiency of farm machinery business learns the necessary engineering calculations and designs.
	2	Gain ability to learn and use agricultural machines and measuring tools and equipment used in experiments.
	3	Agricultural machine making the experiment, the type of machine equipment, machine elements used in the practical learns.
	4	Examines the job security of the machines and ergonomic aspects of design, development and production of learned studies.
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21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	The purpose of the experiments and the importance of farm machinery, agricultural tools and machinery principles and methods of test, examination of the TS and ISO standards;	
2	Soil, product disclosure and other experimental conditions, agricultural machines, job quality and job description and calculation of the yields of different sizes;	
3	Determine the method of experiment, measurement of agricultural machinery and tools used in experiments; draft force, power, fuel consumption measurement methods;	
4	Experimental Methods: Tractor and cabin experiments; soil processing tools and machinery tests	
5	Experimental Methods: Sowing, planting, maintenance and fertilizing machinery tests;	
6	Experimental Methods: mowing, hay balers barrel-turning machines and experiments, harvesting and threshing machines, combine harvesters and other experiments;	
7	Experimental Methods: Agricultural spraying equipment tests;	
	crushing, grinding, cleaning, classification, and testing machines;	
	transmission experiments,	
11	Experimental Methods: milking machines and	
12	Experimental Methods: Other food,	
	methods, experimental essays.	
13	Arrangement of the test reports.	
	Materials:	Gıda, Tarım ve Hayvancılık Bakanlığı, Ankara. 2. TSE (Çeşitli Tarım Makinalarını kapsayan Ulusal 3. ISO (Çeşitli Tarım Makinalarını kapsayan Uluslararası Standartlar).

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	1	3.00	3.00
Projects	1	25.00	25.00
Field Studies	0	0.00	0.00
Midterm exams	1	2.00	2.00
Others	0	0.00	0.00
Final Exams	1	2.00	2.00
Total Work Load			90.00
Total work load/ 30 hr			2.93
ECTS Credit of the Course			3.00

23	Assesment	
TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	1	30.00
Quiz	0	0.00
Home work-project	1	20.00
Final Exam	1	50.00
Total	3	100.00
Contribution of Term (Year) Learning Activities to Success Grade		50.00

Contribution of Final Exam to Success Grade	50.00
Total	100.00
Measurement and Evaluation Techniques Used in the Course	Measurement and evaluation is carried out according to the principles of Bursa uludag University Associate and Undergraduate Education Regulation.

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	5	5	5	3	5	5	5	4	4	5	4	5	0	0	0	0
ÖK2	5	5	5	3	5	5	5	4	4	5	4	5	0	0	0	0
ÖK3	5	5	5	3	5	5	5	4	4	5	4	5	0	0	0	0
ÖK4	5	5	5	3	5	5	5	4	4	5	4	5	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

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