



**AYDIN ADNAN MENDERES UNIVERSITY**  
**KOÇARLI VOCATIONAL SCHOOL**  
**MECHANICAL AND METAL TECHNOLOGY**  
**AGRICULTURAL MACHINERY**  
**COURSE INFORMATION FORM**

Course Title	Agricultural Machinery Service and Maintenance								
Course Code	TAM220			Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	4	Workload	100 (Hours)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	To instruct maintenance, adjustment and repair work to do from tillage to harvest and post-harvest agricultural machines. To establish the maintenance requirements by knowing the working conditions of agricultural machines.								
Course Content	Maintenance of the stages, maintenance plans, to prepare maintenance plans. Soil processing equipment maintenance and repair. Seed sowing machines maintenance and repair. Spraying machinery maintenance and repair								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Discussion, Case Study, Project Based Study, Individual Study								
Name of Lecturer(s)									

#### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

#### Recommended or Required Reading

1	Engürülü, B., Çiftçi, Ö., Gölbaşı, M., Başaran, H.Ç. ve Akkurt, M., 2005. Ekim ve Dikim Makineleri. Republic of Turkey Ministry of Food, Agriculture and Livestock, Ankara Zirai Üretim İşletmesi, Personel ve Makine Eğitim Merkezi Müdürlüğü, ISBN:975-407-170-5, Ankara.
2	Yılmaz, M., Engürülü, B., Çiftçi, Ö., Gölbaşı, M., Başaran, H.Ç. ve Akkurt, M., 2004. Toprak İşleme Alet ve Makineleri. Republic of Turkey Ministry of Food, Agriculture and Livestock, Ankara Zirai Üretim İşletmesi, Personel ve Makine Eğitim Merkezi Müdürlüğü, ISBN:975-407-154-3, Ankara.
3	Kasap, E., Engürülü, B., Çiftçi, Ö., Kılınc, K.S., Gölbaşı, M., Başaran, H.Ç. ve Akkurt, M., 1998. Tarım Alet ve Makineleri. Republic of Turkey Ministry of Food, Agriculture and Livestock, Ankara Zirai Üretim İşletmesi, Personel ve Makine Eğitim Merkezi Müdürlüğü, ISBN:975-407-023-7, Ankara.
4	Engürülü, B., Çiftçi, Ö., Kılınc, K.S., Gölbaşı, M., Başaran, H.Ç. ve Akkurt, M., 2002. Gübre Dağıtma Makineleri. Republic of Turkey Ministry of Food, Agriculture and Livestock, Ankara Zirai Üretim İşletmesi, Personel ve Makine Eğitim Merkezi Müdürlüğü, ISBN:975-407-089-X, Ankara.
5	Sezer, S., Engürülü, B., Çiftçi, Ö., Gölbaşı, M., Başaran, H.Ç. ve Akkurt, M., 2005. Bağ-Bahçe Mekanizasyonu. Republic of Turkey Ministry of Food, Agriculture and Livestock, Ankara Zirai Üretim İşletmesi, Personel ve Makine Eğitim Merkezi Müdürlüğü, ISBN:975-407-190-7, Ankara.

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction the course and general information about the teaching aids
	Practice	To maintenance and repair of soil processing equipment
	Preparation Work	Examining course contents
2	Theoretical	Maintenance of the stages, maintenance plans, to prepare maintenance plans.
	Practice	To maintenance and repair of soil processing equipment
	Preparation Work	Literature review about the subject
3	Theoretical	Soil processing equipment maintenance and repair
	Practice	To maintenance and repair of soil processing equipment
	Preparation Work	Literature review about the subject
4	Theoretical	Soil processing equipment maintenance and repair
	Practice	To maintenance and repair of soil processing equipment
	Preparation Work	Literature review about the subject
5	Theoretical	Soil processing equipment maintenance and repair
	Practice	To maintenance and repair of soil processing equipment
	Preparation Work	Literature review about the subject
6	Theoretical	Soil processing equipment maintenance and repair
	Practice	To maintenance and repair of soil processing equipment



6	Preparation Work	Literature review about the subject
7	Theoretical	Seed sowing machines maintenance and repair
	Practice	To maintenance and repair of seed sowing machines
	Preparation Work	Literature review about the subject
8	Intermediate Exam	Midterm exam
9	Theoretical	Fertilizing machinery maintenance and repair
	Practice	To maintenance and repair of fertilizing machines
	Preparation Work	Literature review about the subject
10	Theoretical	Fertilizing machinery maintenance and repair
	Practice	To maintenance and repair of fertilizing machines
	Preparation Work	Literature review about the subject
11	Theoretical	Spraying machinery maintenance and repair
	Practice	To maintenance and repair of spraying machines
	Preparation Work	Literature review about the subject
12	Theoretical	Spraying machinery maintenance and repair
	Practice	To maintenance and repair of spraying machines
	Preparation Work	Literature review about the subject
13	Theoretical	Mower machinery maintenance and repair
	Practice	To maintenance and repair of mower machines
	Preparation Work	Literature review about the subject
14	Theoretical	Combines harvester machinery maintenance and repair
	Practice	To maintenance and repair of combine harvester
	Preparation Work	Literature review about the subject
15	Theoretical	Practice exam
	Practice	Explanation of agricultural machines in the form of questions and answers
	Preparation Work	Practice Exam preparation
16	Theoretical	Final Exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Assignment	5	0	1	5
Studio Work	9	0	1	9
Midterm Examination	1	14	1	15
Final Examination	1	14	1	15
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

1	To be able to identify tools and equipment used in agriculture,
2	To be able to prepare maintenance plans according to working conditions.
3	To be able to determine the causes of attrition to plan the repair process.
4	To be able to plan Maintenance and repair workshops according to needs.
5	To be able to gain ability to completely dismantle and assemble of Agricultural equipment and machinery.
6	To be able to use tools and toolboxes for the intended purpose.

### Programme Outcomes (Agricultural Machinery)

1	To be able to comprehend social, cultural and societal responsibility and keep up with national and international up contemporary issues and developments.
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2	To be able to be bounded to the Atatürk nationalism, adopted to the national, ethic, spiritual and cultural value of the Turkish Nation, opened to the universal and modern development, adopted the richness, deep seated and productive properties of the Turkish language, having language sympathy and awareness, having reading pleasure and habit and having sufficient foreign language for their vocational necessities, In the directions of the Atatürk Principles and Revolutions,
3	To be able to recognize the basic computer hardware and operating systems , knowledge of internet usage being able to prepare documents, electronic tables and presentation by using office programs.
4	To be able to be aware of ethic responsibility and vocational profession and to have consciousness of a lifelong learning concept
5	To be able to know current vocational issues and to have skill to define and interpret them.
6	To be able to be aware of the universal and social dimensional effects in engineering solutions, and to be able to have knowledge about entrepreneurship and newfangledness.
7	To recognize the materials which used for preparation of agricultural machinery and have skill for the choosing the appropriate material.
8	To be able to acquire the skill of using the necessary tools and equipments which are used in the production and maintenance of agricultural machinery.
9	To be able to prepare the agricultural tools and machineries, to determine the breakdowns and to do periodic maintenance and repairs.
10	To be able to comprehend the picture of the agricultural tools and machinery and their fabrication , and have the skill to draw them via computer.
11	To be able to assemble and to combine machinery pieces by using demountable and nondetachable junction methods.
12	To be able to have the skill of resistance calculations of the agricultural tool and machinery on computer.
13	To be able to test and control the suitability of new machines and mechanic equipment to the definite standarts and technical properties.
14	To be able to have general knowledge of agricultural production.
15	To be able to have knowledge of basic sciences.

**Contribution of Learning Outcomes to Programme Outcomes** 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

	L1	L2	L3	L4	L5	L6
P4	4	3	5	3	5	5
P5	4	3	3	3	3	3
P6	4	3	3	3	3	3
P7	3	3	5	5	5	5
P8	3	3	5	5	5	5
P9	3	3	5	5	5	5

