



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

Course Title	Agricultural Tractors								
Course Code	TAM207			Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	4	Workload	100 (Hours)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	To give the required information about theory, design, manufacturing and operation of farm tractors to the students.								
Course Content	The importance of tractors in agricultural mechanization. types of tractor, the use of tractor, wheel and tractor mechanics. diesel engine characteristics. tractor transmission systems. tractor steering, tractor hydraulic systems.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Experiment, Demonstration, Discussion, Case Study, Individual Study, Problem Solving								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	Keçecioğlu, G. ve Gülsoylu, E., 2002. Tarım Traktörleri. E.Ü.Z.F.Press Number:656. İzmir.
2	Sabancı, A., 1993. Tarım Traktörleri. Ç.Ü.Z.F. Press Number:9, Adana.
3	Saral, A., 1984. Tarım Traktörleri. A.Ü. Z.F. Press Number:271, Ankara.

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to the class, definitions and general information about lesson
	Practice	Introduction of tractors
	Preparation Work	Examining course contents
2	Theoretical	Classification of tractors and tractors types
	Practice	Introduction of tractors
	Preparation Work	Literature review about the subject
3	Theoretical	Evaluation of operating properties of internal combustion engines
	Practice	Introduction of tractors
	Preparation Work	Literature review about the subject
4	Theoretical	The clutch and properties
	Practice	Introduction of tractors
	Preparation Work	Literature review about the subject
5	Theoretical	The gearbox
	Practice	Introduction of tractors
	Preparation Work	Literature review about the subject
6	Theoretical	The differential and final reduction gears
	Practice	Introduction of tractors
	Preparation Work	Literature review about the subject
7	Theoretical	Steering and braking systems of tractors
	Practice	Introduction of tractors
	Preparation Work	Literature review about the subject
8	Intermediate Exam	Midterm Exam
9	Theoretical	Hydraulic systems and power take-off of tractors
	Practice	Introduction of tractors
	Preparation Work	Literature review about the subject
10	Theoretical	Tractors mechanics



10	Practice	Introduction of tractors
	Preparation Work	Literature review about the subject
11	Theoretical	Tractor tests
	Practice	Introduction of tractors
12	Preparation Work	Literature review about the subject
	Theoretical	Maintenance and repair of tractors
	Practice	To maintenance and repair of tractors
13	Preparation Work	Literature review about the subject
	Theoretical	Maintenance and repair of tractors
	Practice	To maintenance and repair of tractors
14	Preparation Work	Literature review about the subject
	Theoretical	Maintenance and repair of tractors
	Practice	To maintenance and repair of tractors
15	Preparation Work	Literature review about the subject
	Theoretical	Practical Exam
	Practice	Explanation of the parts on the tractor in the form of questions and answers
16	Preparation Work	Practice Exam preparation
	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 comprehend the basic principles of agricultural tractors.
2	To be able to recognize the types and properties of tractor
3	To be able to comprehend structural elements and characteristics of agricultural tractors
4	To be able to use and adjust the tractor in accordance with agricultural work.
5	To be able to choose a suitable tractor and to solve its problems.
6	To be able to determine various faults tractors
7	to be able to acquire the ability to mend tractor breakdowns

### 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.
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 standards 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	L7
P4	3	4	4				
P5		4	5				
P6		3	5		5		
P7			4	4		5	5
P8				5		5	5
P9			4	5			
P10				4			

