



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Asynchronous and Synchronous Machines							
Course Code		ELE203		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	4	Workload	100 ( <i>Hours</i> )	Theory	3	Practice	1	Laboratory	0
Objectives of the Course		In this course, it is aimed to have the students gain the abilities and knowledge about finding the ends of all kinds of asynchronous and synchronous electric machines, connecting them to the circuit and operating processes.							
Course Content		Installation, operation and investigation of AC motors, generators and synchronous motors							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Individual Study, Problem Solving					
Name of Lecturer(s)		Ins. Serkan ARTAN							

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

### Recommended or Required Reading

1	ASYNCHRONOUS MACHINES(Doç.Dr.İlhami Çolak)
2	Electric machines(M.Alacacı)

Week	Weekly Detailed Course Contents	
1	Theoretical	Installation and Operation of AC Motors
2	Theoretical	Installation and Operation of AC Motors
3	Theoretical	Installation and Operation of AC Motors
4	Theoretical	Installation and Operation of AC Motors
5	Theoretical	Installation and Operation of Generators -1
6	Theoretical	Installation and Operation of Generators
7	Theoretical	Installation and Operation of Generators
8	Theoretical	Installation and Operation of Generators -2
9	Theoretical	Installation and Operation of Generators
10	Theoretical	Installation and Operation of Generators
11	Theoretical	Installation and Operation of Generators
12	Theoretical	Installation and Operation of Synchronous Motors
13	Theoretical	Installation and Operation of Synchronous Motors
14	Theoretical	Installation and Operation of Synchronous Motors

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	3	56
Lecture - Practice	14	0	1	14
Studio Work	4	2	0	8
Midterm Examination	1	10	1	11
Final Examination	1	10	1	11
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

1	Operation of monophas asynchronous motors
2	Operation of triphase asynchronous motors



3	Operation of synchronous generators (alternators)
4	Operation of synchronous motors
5	Defines the failure of asynchronous and synchronous machines.

#### Programme Outcomes (Electrics)

1	ABILITY TO MAKE APPLICATIONS OF MEASUREMENT AND CALCULATION
2	ABILITY TO MAKE CONNECTIONS OF A DC CIRCUIT
3	ABILITY TO MAKE BASIC ELECTRONIC CIRCUIT AND APPLICATIONS
4	ABILITY TO MAKE ELECTRIC INSTALLMENT APPLICATIONS
5	ADAPTING VOCATIONAL ETHICAL VALUES
6	ABILITY TO MAKE COMMUNICATION
7	ABILITY TO MAKE CONNECTIONS OF AC CIRCUIT
8	ABILITY TO MAKE NUMERICAL CIRCUITS
9	ABILITY TO MAKE INSTALLATIONS OF TRANSFORMER AND DC ELECTRIC MACHINES
10	ABILITY TO MAKE COMPUTER AIDED DESIGN
11	ABILITY TO APPLY VOCATIONAL TECHNICAL METHODS
12	ABILITY TO MAKE INSTALLATIONS OF AC ELECTRIC MACHINES
13	ABILITY TO MAKE SPECIAL ELECTRIC INSTALLMENTS
14	ABILITY TO MAKE INSTALLMENTS OF COMMAND SYSTEMS
15	ABILITY TO DRAW COMPUTER AIDED ELECTRIC SCHEME
16	ABILITY TO MAKE POWER ELECTRONICS CIRCUITS
17	ABILITY TO MAKE SYSTEM ANALYSIS AND PRODUCT DESIGN
18	ABILITY TO IMPROVE ONESELF UTILIZING INFORMATION OPPORTUNITIES
19	ABILITY TO DRAW COMPUTER AIDED ELECTRIC INSTALLMENT PROJECT
20	ABILITY TO MAKE ANALYSIS AND MAINTENANCE OF ELECTRICAL ENERGY PRODUCTION SYSTEMS
21	ABILITY TO MAKE THE WINDING OF ACCURATE AND ALTERNATIVE CURRENT ENGINES
22	ABILITY TO RECOGNIZE SYSTEMS USED IN ELECTRICAL ENERGY TRANSMISSION AND DISTRIBUTION AND TROUBLESHOOTING
23	Ability to use the methods and techniques of career planning and discussing the effects of character traits on career preferences.
24	Ability to plan a career in their own profession.
25	To provide them with knowledge about substance use and addiction problem and prevention methods.

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

	L1	L2	L3	L4	L5
P1	3	3	3	3	
P4			3	3	
P7	3	3	4	4	4
P12	5	5	5	4	4
P14			3	3	
P20	3	2	3	3	4

