



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		High Voltage Technique							
Course Code		ELE264		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	3	Workload	75 (Hours)	Theory	1	Practice	1	Laboratory	0
Objectives of the Course		Identification of these events in the field of high tension and introduction of elements, how it is developed							
Course Content		Basic equations of static electric field, Electric field and potential in planar electrode system, System capacity and strain, Electric field and potential in spherical electrode system, Capacity, Examination of the spherical electrode system for puncture, In the cylindrical electrode system electric field and potential, Capacity of the system Examination of the drilling of the cylindrical electrode system, Cylindrical electrode systems with parallel axes, Electrode systems with a maximum electric field of approx. account, Electrode systems, Breaking at boundary surfaces, Properly forced cable and condenser discharge isolators discharge events, Ionisation and its types, Channel discharge theory, Corona discharge and superficial discharges, Lightning discharge, Lightning formation, properties and effects.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Case Study, Project Based Study					
Name of Lecturer(s)		Ins. Baybars DAL							

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Electricity Energy Distribution and Transfer(Ilyas Tosun)
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Week	Weekly Detailed Course Contents	
1	Theoretical	Basic equations of static electric field
2	Theoretical	Electric field and potential in planar electrode system, system capacity and strain
3	Theoretical	Electric field and potential in the spherical electrode system, capacity of the system
4	Theoretical	Investigation of spherical electrode system for puncture
5	Theoretical	Electric field and potential in cylindrical electrode system
6	Theoretical	Examination of drilling of cylindrical electrode system
7	Theoretical	Parallel-axis cylindrical electrode systems
8	Theoretical	Approximate calculation of maximum electric field in electrode systems
9	Intermediate Exam	Midterm
10	Theoretical	Stratified electrode systems, breaking at boundary surfaces
11	Theoretical	Transient isolators with smooth forced cable and capacitors
12	Theoretical	Discharge events
13	Theoretical	Ionization and its types - Channel discharge theory
14	Theoretical	Korona discharge and superficial discharges
15	Theoretical	Lightning formation, properties and effects
16	Final Exam	Final Exam



Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Midterm Examination	1	8	1	9
Final Examination	1	8	2	10
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	
2	
3	
4	
5	
6	

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	L6
P1	2	3		3	3	4
P7					4	
P20	3	4	3	3	4	4
P22	5	5	5	5	5	

