



# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

103 PRINCIPLES OF ATATÜRK AND HISTORY OF REVOLUTION I					
Semester	Course Code	Course Name	L+P	Credit	ECTS
1	103	PRINCIPLES OF ATATÜRK AND HISTORY OF REVOLUTION I	2	2	1

#### Language of Instruction:

Turkish

#### Course Level:

Associate

#### Work Placement(s):

No

#### Department / Program:

ELECTRICITY

#### Course Type:

Zorunlu

#### Goals:

Ensuring the collapse of the Ottoman Empire and the Turkish struggle for independence of this course will be exposed.

#### Teaching Methods and Techniques:

To study and teach revolution and similar concepts which prepare the Turkish Revolution and the collapse of the Ottoman Empire, 1st World War, National reactions after the Occupation of Anatolia, Atatürk, his life and principles, Preparation period of Turkish Grand Independence War, Opening the Turkish National Assembly (TBMM), Abolishment of the Sultanate, Lozan Peace treaty, Declaration of Republic.

#### Prerequisites:

#### Course Coordinator:

#### Instructors:

Instructor Talat KOÇAK

#### Assistants:

#### Recommended Sources

Textbook	:	
Resources	:	Akarsu,B.(1981)Atatürk Devrimi ve Yorumları, Ankara: Milli Eğitim Basimevi *Atatürk,M.Kemal (1962)Nutuk.I.ve II.Ciltler.Ankara: Milli Eğitim Y.
Documents	:	
Assignments	:	
Exams	:	

#### Course Category

Mathematics and Basic Sciences	:	Education	:
Engineering	:	Science	:
Engineering Design	:	Health	:
Social Sciences	:	Field	:
	:	100	:

#### Course Content

Week	Topics	Study Materials	Materials
1	Revolution and Revolutionary Concepts; State and its components, evolution, Reforms, upheaval, Governmental coup, revol		
2	The reasons causing Turkish Revolution, the collapse of Ottoman Empire, interior reasons, Exterior reasons		
3	Renovation movements in Ottoman Empire, The reforms in Tanzimat period, The First and The Second Constitutional Mon		
4	The Movements of Ideas in the late years of the Ottoman Empire (Ottoman, Islam, Western and Turkish Reflections), The I		
5	The causes of World War I, the outset of the war, The Involvement of the Ottoman Empire in the war, Fronts and their res		
6	The treaties about the allocation of the Ottoman Empire (The Bosphorus Treaty, London Treaty, Skyes Picot Treaty, St. Jee		
7	MidTerm Exam		
8	Arasınay ve Ders Tekrarı		
9	National Struggle Period, the condition of the country in face of the occupations, Committees and their activities, Atatürk's		
10	Balikesir and Alasehir Congresses, The Importance of the Sivas Congress and other Congresses during the National Struggle		
11	Amasya Negotiations, the meeting held with the Commanders in Sivas, The arrival of Representative Committee, The meeti		
12	From the National Pact to the Turkish Grand National Assembly, The Media in the Nation		
13	The foundation of the National Army (The Nationalist Forces, Systematic Army) The Southern and Southeastern Fronts, Th		
14	Armenian Problem, The wars against the Armenians, Turkish - Georgia Relations, The Western Front, (The First and Second		

#### Course Learning Outcomes

No	Learning Outcomes
C01	Assess the causes which have prepared Turkish War of Independence
C02	Define revolution/reform concepts, Build up differences from concepts of Reform, usurpation and revolution
C03	Compare managerial, economical, political and social condition of the empire with the developments in the world
C04	Analyse the occurred processes World War I and the policies of Mustafa Kemal and his friends in view of the facts
C05	Give multi-dimensional responses when it is asked why the occupation started in Anatolia by evaluating the approach of palace and authorities of Istanbul against occupations.
C06	Figure out political, social and psychological valuations in subject how the resistance efforts of Turkish folk were conjoined when Mustafa Kemal Pasha reached Anatolia.
C07	Appraise why Amasya circular was defined as "revolution announcement", Cognize and debate about the severity of Erzurum and Sivas congresses in aspect of Turkish War of Independence
C08	Compare and appraises the fundamental of nation self determination and gathering process of Istanbul parliament. Analyse the place of national pact in Turkish revolution

#### Program Learning Outcomes

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	13	2	26
Hours for off-the-c.r.stud	1	5	5
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	1	5	5
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	5	5
<b>Total Work Load</b>			<b>41</b>
<b>ECTS Credit of the Course</b>			<b>1</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

127 INFORMATION AND COMMUNICATION TECHNOLOGY I					
Semester	Course Code	Course Name	L+P	Credit	ECTS
1	127	INFORMATION AND COMMUNICATION TECHNOLOGY I	2	2	2

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

The scope of the basic concepts of computer hardware, software, information networks, information security issues, file and folder operations, word, excel, power point, the concept and use of the internet, giving information on topics related to e-mail applications

**Teaching Methods and Techniques:**

Basic concepts, file management, word, excel, power point, internet and e-mail contains topics

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Ahmet YURDADUR

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Temel Bilgi teknolojileri I-II Book AKÜ
<b>Resources</b>	:	<a href="http://enformatik.aku.edu.tr/uzaktan-egitim-dersleri/bilgisayar-2/">http://enformatik.aku.edu.tr/uzaktan-egitim-dersleri/bilgisayar-2/</a>
<b>Documents</b>	:	<a href="http://enformatik.aku.edu.tr/uzaktan-egitim-dersleri/bilgisayar-2/">http://enformatik.aku.edu.tr/uzaktan-egitim-dersleri/bilgisayar-2/</a>
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	50	<b>Education</b>	:	
<b>Engineering</b>	:		<b>Science</b>	:	
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	50

**Course Content**

Week	Topics	Study Materials	Materials
1	Basic concepts		
2	File management- Application		
3	MS Word: Working with documents, improving productivity, entering text-Application		
4	Word: paragraph settings, styles, table creation, graphics and objects-Application		
5	Word: Address - mail merge, output preparation, control and print-Application		
6	Excel spreadsheet: to work with tables, insert, select, edit, sort, copy, move, delete-Application		
7	Mid-term and recourse		
8	Mid-term and recourse		
9	Excel: Rows, columns, worksheets, arithmetic formulas, functions-Application		
10	Excel: numbers, dates, alignment, graphics, output settings, control and print-Application		
11	Powerpoint Presentations: Presentations work, presentation, appearance, slides-Application		
12	Power point: the use of text, formatting, tables, graphics use, diagrams-Application		
13	Power point: Adding, editing, drawing, output preparation, control and provide-Application		
14	Internet and e-mail-Application		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Knows that the computer operating system the properties of the computer's hardware components
C02	Knows the information networks and properties
C03	The computer file copy, move, view file properties, file compression, decompression on the compressed files can
C04	Create a folder, rename the folder, the folder can delete, and edit operations
C05	Word text into a word processor program provides for adjustment of the line and paragraph
C06	Add Word table format your table
C07	Excel worksheet, row, column and cell selection, copy, move and delete operations will
C08	Knows the rules and formulas, the formulas work
C09	Slide on the text, tables, graphs and diagrams adds Takes on the slide makes editing and output
C10	Can modify the slide layout
C11	Information using the Internet reaches

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%100
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%160</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	14	2	28
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	1	5	5
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	5	5
<b>Total Work Load</b>			<b>66</b>
<b>ECTS Credit of the Course</b>			<b>2</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

123 DIRECT CURRENT CIRCUIT ANALYSIS					
Semester	Course Code	Course Name	L+P	Credit	ECTS
1	123	DIRECT CURRENT CIRCUIT ANALYSIS	3	3	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

In this course, implementation of the principles of the electric current to direct current electric circuits solutions, and to do all aimed to gain qualifications.

**Teaching Methods and Techniques:**

1 Static Electricity 2 Static electricity, a precaution against adverse effects of Electric Current 3 a precaution against adverse effects of Electric Current, Direct Current Circuit Solutions 4 Direct Current Circuit Solutions, Environmental Flows Method 5 Environmental Flows Method 6 Node Voltage Method 7 Resource Links, Thevenin's Theorem 8 Thevenin's Theorem, Norton's Theorem 9 Super Position Theorem, Maximum Power Transfer Theorem 10 Maximum Power Theorem, Direct Current storage elements 11 at direct current storage elements 12 at direct current storage elements, the flow of power and energy 13 at direct current power and energy 14 at direct current power and energy

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	The textbook, books and other resources to help
<b>Resources</b>	:	Principles of Electric Circuits, Floyd, Lecturer Notes, Doğru Akım devre analizi, M.T. Okumuş-A. Gümüşoluk
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	40	<b>Education</b>	:	
<b>Engineering</b>	:	20	<b>Science</b>	:	10
<b>Engineering Design</b>	:	10	<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	20

**Course Content**

Week	Topics	Study Materials	Materials
1	Electrical quantities and defining basic concepts, electric charge, current, voltage, resistance and conductivity, resistance at		
2	Identification of electrical quantities, voltage current resistance relationships (Ohm's law), electrical circuit, elektromotorkuv		
3	Basic electric circuit variables, active and passive elements, voltage sources, current sources, dependent sources		
4	Resistor connected in series circuits and Kirchoff's tensions of the law, sample problems.		
5	Connected in parallel resistive circuits and Kirchoff's? of the law of currents, series-parallel (mixed) resistive circuits, sample		
6	Electrical circuits and methods used in the solution of the environmental flow method, two-edge electric circuits, three-edge		
7	The methods used in solving electrical circuits, node voltage method		
8	Mid-term exam		
9	Mid-term exam		
10	The basic theorems for the solution of electrical circuits, Superposition theorem, Thevenin's theorem, the sample circuit sol		
11	Norton's theorem and Norton's theorem for solving electrical circuits and circuit solutions.		
12	Maximum power used in the solution of electrical circuits theory, star / delta, and Ucenı star transformation method, an ex		
13	In direct current circuit of the capacitor, the capacitor capacity and capacitor time constant direct current circuits, the store		
14	In direct current circuit of the coil, the coil inductance, coil time constant direct current circuits, energy stored in the coil co		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Take precautions against adverse effects of static electricity.
C02	Take precautions against the effects of electric current.
C03	Makes the measurement and calculation of direct current resistance.
C04	Circuit parameters Are measures and calculate by method of Mesh (Loop) analysis.
C05	Circuit parameters Are measures and calculate by method of the Nodal analysis.
C06	Determine the voltage across or current through any portion of a network.
C07	Measurements and the calculation of the energy storage elements by direct current fields of application, knows by use types.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious.
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	10	3	30
Assignments	2	12	24
Presentation	0	0	0
Mid-terms	1	12	12
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	12	12
<b>Total Work Load</b>			<b>120</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

137 OCCUPATIONAL SAFETY AND HEALTH					
Semester	Course Code	Course Name	L+P	Credit	ECTS
1	137	OCCUPATIONAL SAFETY AND HEALTH	3	3	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seğmeli

**Goals:**

This course aims to recognize the importance of workers' health and safety precautions should be taken. Students receive workers' health and safety precautions, first aid, and recycled waste, in accordance with do.

**Teaching Methods and Techniques:**

Definition of occupational safety and legislation occupational diseases Protective and preventive measures Emissions legislation on environmental pollution and harmful gases Occupational safety and work safety equipment Protective and preventive measures Indoor air quality First Aid have knowledge of.

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Ali BALKI

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	The textbook, books and other resources to help
<b>Resources</b>	:	AKBULUT, Turhan (1996), İşçi Sağlığı Prensi ve Uygulamaları, Sistem Yayıncılık, İstanbul., İSTANBUL BAROSU (2004), İş Sağlığı ve Güvenliği, yazar
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	10	<b>Education</b>	:	
<b>Engineering</b>	:	20	<b>Science</b>	:	
<b>Engineering Design</b>	:	10	<b>Health</b>	:	10
<b>Social Sciences</b>	:		<b>Field</b>	:	50

**Course Content**

Week	Topics	Study Materials	Materials
1	Definition of occupational safety and legislation	Lesson preparation	Lecture notes
2	occupational diseases	Lesson preparation	Lecture notes
3	Protective and preventive measures	Lesson preparation	Lecture notes
4	Emissions legislation on environmental pollution and harmful gases	Lesson preparation	Lecture notes
5	Occupational safety and work safety equipment	Lesson preparation	Lecture notes
6	Protective and preventive measures	Lesson preparation	Lecture notes
7	Indoor air quality, first-aid	Lesson preparation	Lecture notes
8	Mid-term exam	Exam	Lecture notes
9	first aid supplies	Lesson preparation	Lecture notes
10	First aid and emergency protective	Lesson preparation	Lecture notes
11	First aid and emergency protective	Lesson preparation	Lecture notes
12	Waste and waste classification	Lesson preparation	Lecture notes
13	waste storage	Lesson preparation	Lecture notes
14	Recycling and recycling systems	Lesson preparation	Lecture notes

**Course Learning Outcomes**

No	Learning Outcomes
C01	Definition of occupational safety and legislation
C02	occupational diseases
C03	Protective and preventive measures
C04	Emissions legislation on environmental pollution and harmful gases
C05	Occupational safety and work safety equipment

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	14	3	42
Assignments	3	3	9
Presentation	0	0	0
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	5	5	25
Final examination	1	1	1
<b>Total Work Load</b>			<b>120</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

### Course Contribution To Program

Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant

	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	P11	P12	P13	P14
All	1	1	1	3	1	1	1	1	1	1	1	3	1	5
C01	1	1	1	3	1	1	1	1	1	1	1	3	1	5
C02	1	1	1	3	1	1	1	1	1	1	1	3	1	5
C03	1	1	1	3	1	1	1	1	1	1	1	3	1	5
C04	1	1	1	3	1	1	1	1	1	1	1	3	1	5
C05	1	1	1	3	1	1	1	1	1	1	1	3	1	5





# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

133 QUALITY ASSURANCE AND STANDARDS					
Semester	Course Code	Course Name	L+P	Credit	ECTS
1	133	QUALITY ASSURANCE AND STANDARDS	3	3	4

#### Language of Instruction:

Turkish

#### Course Level:

Associate

#### Work Placement(s):

No

#### Department / Program:

ELECTRICITY

#### Course Type:

Seğmeli

#### Goals:

The aim of the course is to describe quality concepts and quality evaluation, to explain Total Quality Control, ISO 9001:2000 version, to teach standard and standardization.

#### Teaching Methods and Techniques:

Standardization: Definition, Aims and principles, TSE (Turkish Standards Institute) and its mission, Regional and internal standardization associations; Quality and Quality Concept: Quality definition and concept, Quality approach, Quality costs and risks, Concept of quality control; Quality Assurance: Quality management principles, TS-EN-ISO 9000, TS-EN-ISO 9001; TS-EN, ISO 9004, ISO 9004, ISO 19011 standards and explanations; Vocational Standards: Understanding vocational standards.

#### Prerequisites:

#### Course Coordinator:

#### Instructors:

Instructor Abdil KARAKAN

#### Assistants:

#### Recommended Sources

<b>Textbook</b>	:	Reference books related to the quality and standardization.
<b>Resources</b>	:	Lecture slides.
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

#### Course Category

<b>Mathematics and Basic Sciences</b>	:		<b>Education</b>	:	50
<b>Engineering</b>	:		<b>Science</b>	:	
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:	20	<b>Field</b>	:	30

#### Course Content

Week	Topics	Study Materials	Materials
1	The importance of standardization and content of the		Yesilkaya, L. " Kalite Güvence ve Standa
2	Standard work		Yesilkaya, L. " Kalite Güvence ve Standa
3	TSE and Standardization		Yesilkaya, L. " Kalite Güvence ve Standa
4	Organization and duties of the TSE		Yesilkaya, L. " Kalite Güvence ve Standa
5	Total Kalite historically-based Management		Yesilkaya, L. " Kalite Güvence ve Standa
6	Basic concepts of Quality and Assurance		Yesilkaya, L. " Kalite Güvence ve Standa
7	Factors affecting the importance of quality and quality		Yesilkaya, L. " Kalite Güvence ve Standa
8	The basic principles of total quality management and		Yesilkaya, L. " Kalite Güvence ve Standa
9	Overview and Midterm Exam		Yesilkaya, L. " Kalite Güvence ve Standa
10	Quality Assurance system standards (ISO 9000)		Yesilkaya, L. " Kalite Güvence ve Standa
11	Quality Assurance system standards (ISO 9000)		Yesilkaya, L. " Kalite Güvence ve Standa
12	ISO 9000:2000 Quality management system		Yesilkaya, L. " Kalite Güvence ve Standa
13	ISO 9000:2000 Quality management system		Yesilkaya, L. " Kalite Güvence ve Standa
14	CE Mark and Accreditation		Yesilkaya, L. " Kalite Güvence ve Standa

#### Course Learning Outcomes

##### No Learning Outcomes

C01	Learn the concepts of standards and standardization
C02	Learn the concepts of quality and quality
C03	ISO 9000 quality system learns

#### Program Learning Outcomes

##### No Learning Outcome

P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	14	2	28
Assignments	0	0	0
Presentation	1	2	2
Mid-terms	8	3	24
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	8	3	24
<b>Total Work Load</b>			<b>120</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

115 MATHEMATICS					
Semester	Course Code	Course Name	L+P	Credit	ECTS
1	115	MATHEMATICS	4	4	5

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

Increasing the ability of basic arithmetic and algebraic operation and it is aimed to know the basic mathematical and geometrical definitions.

**Teaching Methods and Techniques:**

The main content of the course can be summarized as, the theory of sets, numbers, equations, inequalities, absolute value, types of equation, the concept of relations and functions, special functions which are the topics of algebra .

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Ali BALKI

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	First of all, it is planned to build practical and theoretical knowledge which have gained in secondary education on the basis of mathematics.
<b>Resources</b>	:	General Mathematics, Associate Professor Dr. Hüseyin Yıldırım, Afyon Kocatepe University Press, 1998.,Fundamental Maths., Professor Dr. Mustafa
<b>Documents</b>	:	Tüm Temel Matematik ve Genel Matematik Ders Kitapları veya notları
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	80	<b>Education</b>	:	
<b>Engineering</b>	:		<b>Science</b>	:	10
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	10

**Course Content**

Week	Topics	Study Materials	Materials
1	Theory of Sets		
2	The operations on Natural Numbers, Integers, Rational Numbers and Decimal Numbers		
3	The operations related to the exponential and rooted numbers.		
4	Basic identities and equations.		
5	Concepts of absolute value and the exact value.		
6	Solutions of first and second degree equations and inequalities.		
7	Midterm Exam and Course Repetitions.		
8	Midterm Exam and Course Repetitions.		
9	Cartesian coordinate system and the properties, relation and the properties.		
10	Theory of function.		
11	Special functions and their graphics.		
12	Straight line analytics and their geometric interpretations.		
13	Exponential and logarithmic functions and the properties.		
14	Trigonometric functions and their applications.		
15	Final Exams		
16	Final Exams		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Understanding and conception general mathematics knowledge .
C02	Reaching the result with mathematics knowledge and being able to use this with the other aims.
C03	Being able to solve the problems, using standard mathematical methods.
C04	Being able to comment obtained results.
C05	Analysing all situations which can come across.
C06	Improving practice thinking and making quick decision ability.
C07	Recognition of the relationship between mathematics and life and the indispensability of mathematics in our lives.
C08	Thanks to the magic power of mathematics to learn the rules of social life and the importance of ethical values??.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	4	56
Hours for off-the-c.r.stud	14	5	70
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	1	10	10
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	10	10
<b>Total Work Load</b>			<b>146</b>
<b>ECTS Credit of the Course</b>			<b>5</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

135 OFFICE SOFTWARE					
Semester	Course Code	Course Name	L+P	Credit	ECTS
1	135	OFFICE SOFTWARE	3	3	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seçmeli

**Goals:**

To ensure effective use of Office Programs by the students

**Teaching Methods and Techniques:**

Word, Excell, Powerpoint, Web page design

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Microsof Office Help Menu
<b>Resources</b>	:	Microsof Office Help Menu
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	40	<b>Education</b>	:	20
<b>Engineering</b>	:		<b>Science</b>	:	
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:	20	<b>Field</b>	:	20

**Course Content**

Week	Topics	Study Materials	Materials
1	Introducing the topics		
2	Word		
3	Word (Continue)		
4	Word (Practice)		
5	Excell		
6	Excell (Continue)		
7	Excel (Practice)		
8	Exam and rewiev		
9	Powerpoint		
10	Powerpoint (Practice)		
11	Publisher		
12	Publisher (Practice)		
13	Web design (Dreamweaver)		
14	Review		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Can use the office programs
C02	Knows that the installation of Office programs
C03	Solves the problems related to the installation of program
C04	Interpret the program output

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle. Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	14	3	42
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	1	10	10
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	15	15
<b>Total Work Load</b>			<b>109</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

129 MEASUREMENT AND CONTROL TECHNIQUES					
Semester	Course Code	Course Name	L+P	Credit	ECTS
1	129	MEASUREMENT AND CONTROL TECHNIQUES	4	4	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

Principles of Measurement and Instruments, Direct Current Measurements, Alternative Current Measurements, Power and Work (energy) Measurements, Measurements of Circuit Components and Parameters; Measurements with Osiloskop; Industrial measurements and Transducers.

**Teaching Methods and Techniques:**

Principles of Measurement and Instruments; Direct Current Measurements: Principles of ampermeter and voltmeter in direct current. Alternative Current Measurements: Principles of ampermeter and voltmeter in alternative current. Power and Work (energy) Measurements: Power measurement in one and three phases of alternative current circuits, Power measurement in direct current circuits, Power factor, Principles of wattmeter. Measurements of Circuit Components and Parameters. Measurements with Oscilloscope. Industrial Measurements and Transducer. Description and Classify of System. Uprightness, Sensitivity, Symbol.

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	
<b>Resources</b>	:	Required Books: DEDE, Mehmet (2009),Elektrik ve Elektronikte Ölçme Bilgisi Recommended Books: 1. )Prof. Dr. Abdi DALFES, Elektrik Ölçme Laborat
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	40	<b>Education</b>	:	
<b>Engineering</b>	:		<b>Science</b>	:	10
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	50

**Course Content**

Week	Topics	Study Materials	Materials
1	Measurement, measurement units, fundamental electrical quantities.		
2	Measurement faults and its classification		
3	Learn electrical quantities, working principals and structures of tools, dc measurement tools, measurements by galvanom		
4	Features and structures of electrodynamic measurement tools, correctness and resolutions of measurement tools.		
5	Voltage and current measurement in DC.		
6	Measurement of different quantities in AC. Voltage and current transformers and their use.		
7	Midterm exam and repetition of the subject		
8	Midterm exam and repetition of the subject		
9	Structure of electrodynamic measurement tools and Wattmeters.		
10	Electrical power and power factor, and their measurements of in single phase AC.		
11	Power measurements in balanced and unbalanced(aron) 3 phase loads.		
12	Energy measurement, active and reactive energy measurement tools, their structures and working principals.		
13	Use and structures of oscilloscopes and diffrent applications.		
14	Industrial measurements, sensors and transducers, different applications.		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Understands the importance of process measurement applications, recognizes the basic size of the electrical and electronic.
C02	Knows measurement faults and makes analyse statistically.
C03	Defines fundamental principals and features of measurement tolls.
C04	Desigens basic measurement tools.
C05	Selects the correct measurement tools
C06	Uses more than one measurement tools in the same circuit.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle. Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledoe of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	6	%40
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%140</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	4	56
Hours for off-the-c.r.stud	10	2	20
Assignments	8	4	32
Presentation	2	5	10
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>120</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant






# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

131 INTRODUCTION İNSTALLATION					
Semester	Course Code	Course Name	L+P	Credit	ECTS
1	131	INTRODUCTION İNSTALLATION	4	3,50	5

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

Materials to select and implement a low-current circuits. Circuitry to select and apply materials, lighting systems. Strong current installation materials to select and implement circuits.

**Teaching Methods and Techniques:**

Conductors and insulators, cable laying equipment, low-current materials, and types of electrical circuits, application circuits of a low-current installations, lighting and receptacle circuit elements, a strong current make their installation, Cable Title assembling, Underground Cables Hat Making

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	
<b>Resources</b>	:	1.) EMO, Elektrik İç Tesisleri Yönetmeliği 2.) EMO, Elektrik Tesislerinde Topraklamalar Yönetmeliği 3.) SEVİM M, Elektrik Meslek Resmi (Aydınlatma
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	20	<b>Education</b>	:	
<b>Engineering</b>	:		<b>Science</b>	:	
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	80

**Course Content**

Week	Topics	Study Materials	Materials
1	Conductors and insulators		
2	Cable laying equipment		
3	Low-current materials		
4	Electrical circuits and types.		
5	Weak current systems application circuits		
6	Weak current systems application circuits		
7	Midterm exam and repetition of the subject		
8	Midterm exam and repetition of the subject		
9	Lighting and receptacle circuit elements		
10	Lighting and receptacle circuit elements		
11	Strong current installations do		
12	Strong current installations do		
13	Title installation of cable to make		
14	Taking Line Underarround Cables		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Materials to select and implement a low-current circuits.
C02	Circuitry to select and apply materials, lighting systems.
C03	Strong current installation materials to select and implement circuits.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle. Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	10	%20
Attendance	0	%0
Practice	2	%20
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%140</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	4	56
Hours for off-the-c.r.stud	14	3	42
Assignments	8	4	32
Presentation	1	5	5
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>137</b>
<b>ECTS Credit of the Course</b>			<b>5</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

101 TURKISH LANGUAGE I					
Semester	Course Code	Course Name	L+P	Credit	ECTS
1	101	TURKISH LANGUAGE I	2	2	1

### Language of Instruction:

Turkish

### Course Level:

Associate

### Work Placement(s):

No

### Department / Program:

ELECTRICITY

### Course Type:

Zorunlu

### Goals:

The aims of this course are to get students comprehend their mother tongue's grammar rules and structure.

### Teaching Methods and Techniques:

The followings are aimed for the students in this course: To teach Turkish phonetics and morphology To gain the academic writing and speaking ability. To comprehend the unifying feature of lingua franca in education and importance of using the lingua franca according to its rules.

### Prerequisites:

### Course Coordinator:

### Instructors:

Instructor Özge SÖNMEZLER DURAN

### Assistants:

### Recommended Sources

<b>Textbook</b>	:	Theoretical knowledge, Sampling
<b>Resources</b>	:	Textbook:
<b>Documents</b>	:	Türk Dili Ders Kitabı, Afyon Eğitim Sağlık ve Bilim Araştırma Vakfı Yayını, Afyonkarahisar, 2010
<b>Assignments</b>	:	
<b>Exams</b>	:	References: Türkçe Sözlük. TDK Yayınları. Ankara 2009

### Course Category

<b>Mathematics and Basic Sciences</b>	:		<b>Education</b>	:	
<b>Engineering</b>	:		<b>Science</b>	:	
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:	50	<b>Field</b>	:	50

### Course Content

Week	Topics	Study Materials	Materials
1	Language and Culture	Reading "Language and Culture" section	
2	The location of Turkish language in the world's languages	Dünya dillerini ve konuşulduğu yerleri ar	
3	The historical development of the Turkish language - I	Dil devrimi hakkında araştırma yapma.	
4	The historical development of the Turkish language - II	Türklerin kullandığı alfabeler bölümünü i	
5	Alphabets used by Turks	Ses Bilgisi hakkında araştırma yapılması	
6	Dialects of Turkish	Sözcük türlerinin kitaptan okunması	
7	Types of Words I	İşlenen konularla ilgili görsel içerik (vide	
8	Midterm Exam - course recurrence	İşlenen konularla ilgili sorular hazırlama	
9	mid term exam - course recurrence	Yapım eklerinin kitaptan okunması	
10	The derivational suffixes	Cekim ekleri hakkında araştırma	
11	The inflectional suffixes I	Cekim eklerinin kitaptan okunması	
12	The inflectional suffixes II	Kelime grupları ve cümle hakkında kitap	
13	Phrases and syntax	Noktalama işaretlerinin kitaptan okunma	
14	Punctuation	Yazım Kılavuzunun incelenek gelinmesi	
14	Orthography		

### Course Learning Outcomes

No	Learning Outcomes
C01	Know the structure of Turkish and its operating structures.
C02	Use Turkish language in written and oral properly.
C03	Know types of words and use them properly
C04	Say the stages of development of Turkish language and their characteristics
C05	Apply the punctuation rules and orthographic rules.
C06	Know the rules of lingua franca and apply them.

### Program Learning Outcomes

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle. Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	1	14
Hours for off-the-c.r.stud	14	1	14
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>30</b>
<b>ECTS Credit of the Course</b>			<b>1</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

109 FOREIGN LANGUAGE I					
Semester	Course Code	Course Name	L+P	Credit	ECTS
1	109	FOREIGN LANGUAGE I	2	2	2

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

Provide students to use English accurate and meaningful and to acquire reading, writing, speaking knowledge by learning basic grammar rules.

**Teaching Methods and Techniques:**

Meeting, Jobs, Alphabet, Spelling, Singular and plural nouns, This/that/these/those, Numbers, Ordinal numbers, Personal pronouns, Possessive adjectives, Countries, Nationalities, Languages, Am/is/are, Wh-questions, Times, Days, Dates, Everyday life activities, Simple present, Conjunctions, Free-time activities, Like+ing, Would you like...?, Family members, Have/has got, Places in a town, There is/are, Prepositions, Giving directions, Furnitures, Parts of a house, Present continuous, Months, Years, Dates, Can/can't

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Kemal Muhammet ERTEN

**Assistants:****Recommended Sources**

<b>Textbook</b>	: English for Life Book, Workbook, Turkish Companion Grammar and Vocabulary, Tom Hutchinson, Carol Tabor, Jenny Quintana, OXFORD University
<b>Resources</b>	: English for Life Book, Workbook, Turkish Companion Grammar and Vocabulary, Tom Hutchinson, Carol Tabor, Jenny Quintana, OXFORD University
<b>Documents</b>	:
<b>Assignments</b>	:
<b>Exams</b>	:

**Course Category**

<b>Mathematics and Basic Sciences</b>	: 10	<b>Education</b>	: 10
<b>Engineering</b>	:	<b>Science</b>	: 10
<b>Engineering Design</b>	:	<b>Health</b>	: 10
<b>Social Sciences</b>	: 50	<b>Field</b>	: 10

**Course Content**

Week	Topics	Study Materials	Materials
1	Lesson 1-2-3; Meeting, Jobs, Alphabet, Spelling, Singular and plural nouns, Numbers, Ordinal numbers		
2	Lesson 4-5-6; That's life episode 1, Countries, Nationalities, Languages		
3	Lesson 7-8-9; Wh-questions, Times, Days, Everyday life activities		
4	Lesson 10-14; Simple present tense		
5	Lesson 12-13; That's life episode 2, Free-time activities		
6	Lesson 11; Reading, Conjunctions		
7	Midterm exam and lesson repetition		
8	Midterm exam and lesson repetition		
9	Lesson 15-16-17; Like-ing, Would you like...?, Family members		
10	Lesson 18-19; Have/has got, Reading		
11	Lesson 20-21-22; That's life episode 3, Places in a town, There is/are		
12	Lesson 23-24-25; Prepositions, Giving directions, Furnitures, Parts of a house		
13	Lesson 26-27-28; Present continuous tense, Reading, That's life episode 4		
14	Lesson 29-30; Months, Years, Dates, Can/can't		

**Course Learning Outcomes**

No	Learning Outcomes
C01	In accordance with listening skills, he recognizes words, becomes familiar with them, when one speaks slowly and clearly he understands the spoken.
C02	In accordance with reading skills, he understands simple and easy words and sentences.
C03	In accordance with speaking skills, he introduces himself with simple sentences, asks questions and answers.
C04	In accordance with writing skills, he writes personal information, paragraph, short text with simple sentences.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	14	1	14
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	1	10	10
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	10	10
<b>Total Work Load</b>			<b>62</b>
<b>ECTS Credit of the Course</b>			<b>2</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

120 ALTERNATIVE CURRENT CIRCUIT ANALYSIS					
Semester	Course Code	Course Name	L+P	Credit	ECTS
2	120	ALTERNATIVE CURRENT CIRCUIT ANALYSIS	4	4	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

alternating current circuit solution aimed to gain knowledge and skills and to make calculations

**Teaching Methods and Techniques:**

1 - Alternating current 2 - Alternating current 3 - Series circuits 4 - Series circuits 5 - Parallel circuits 6 - Parallel circuits 7 - Resonance 8 - Resonance 9 - Alternating current power and compensation 10 - Alternating current power and compensation 11 - Single-phase alternating current power and energy 12 - Single-phase alternating current power and energy 13 - Three-phase alternating current power and energy 14 - Three-phase alternating current power and energy

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	
<b>Resources</b>	:	Alternatif akım devre analizi, M.T.Okumuş-A.Gümüşoluk, Principles of Electric Circuits, Floyd, lecturer notes
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	: 40	<b>Education</b>	:	
<b>Engineering</b>	: 20	<b>Science</b>	:	10
<b>Engineering Design</b>	: 10	<b>Health</b>	:	
<b>Social Sciences</b>	:	<b>Field</b>	:	20

**Course Content**

Week	Topics	Study Materials	Materials
1	AA current sources		
2	oil		
3	capacitor		
4	resistance		
5	Circuit connections		
6	Circuit connections		
7	impedance		
8	resonance		
9	Exam and course repetition		
10	Exam and course repetition		
11	working		
12	power		
13	efficiency		
14	Power factor		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Understanding the making of the AC
C02	Fundamental measurement of alternating currents and makes the reading process
C03	Alternating current measurements and calculations in the series RLC circuit.
C04	Makes a parallel RLC circuit in alternating current measurements and calculations.
C05	Alternating current measurements and calculations in the serial resonance circuit.
C06	Alternating current measurements and calculations in the parallel resonance circuit.
C07	Single-phase circuits, power and energy measurement instruments, types and locations of usage efficiency calculation result of the measurements makes learning the circuits where relevant.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	4	56
Hours for off-the-c.r.stud	12	2	24
Assignments	2	10	20
Presentation	0	0	0
Mid-terms	1	10	10
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	10	10
<b>Total Work Load</b>			<b>120</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant






# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

104 PRINCIPLES OF ATATÜRK AND HISTORY OF REVOLUTION II					
Semester	Course Code	Course Name	L+P	Credit	ECTS
2	104	PRINCIPLES OF ATATÜRK AND HISTORY OF REVOLUTION II	2	2	1

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

This course will provide the elements of intellectual thought in the Turkish and Kemalist revolution

**Teaching Methods and Techniques:**

To study Revolution and similar concepts which prepare the Turkish Revolution and the collapse of the Ottoman Empire, the 1st World War, National reactions after the Occupation of Anatolia, to teach the Preparation Period of Turkish War of Independence, Opening the Turkish National Grand (TBMM) , Abolishment of Sultanate, The Treaty of Lausanne Pact, Proclamation of Republic.

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Talat KOÇAK

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	
<b>Resources</b>	:	Akarsu,B.(1981)Atatürk Devrimi ve Yorumları, Ankara: Milli Eğitim Basımevi *Atatürk,M.Kemal (1962)Nutuk.I.ve II.Ciltler.Ankara: Milli Eğitim Y.
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:		<b>Education</b>	:	
<b>Engineering</b>	:		<b>Science</b>	:	
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:	100	<b>Field</b>	:	

**Course Content**

Week	Topics	Study Materials	Materials
1	The abolishment of the Sultanate, Lausanne Peace, the inauguration of the Second Turkish Grand National Assembly		
2	Turkish Revolutionary Movements		
3	The First Political Parties of the Republican Period, İzmir Assassination, Menemen Incident		
4	Legal Revolution		
5	Educational Revolution		
6	Cultural Revolution (the studies in the fields of History, Language and fine arts)		
7	MidTerm Exam		
8	The revolutions in the field of Social Life		
9	The Regulations in economic field. The Studies of forming National Economy		
10	The Foreign Policy of Turkish Republic during Atatürk Period. 1923 ? 1932 Foreign Policy Events		
11	1932-1939 Foreign Policy Events. The features of Foreign Policy during Atatürk period		
12	The Second World War Turkey. The outcomes of World War II.		
13	The principles of Atatürk (Republicanism, Nationalism) Populism, Secularism		
14	Statism. Revolutionism. The complementary principles of Atatürk		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Appraise the conditions at the front lines of the Independence War from political and military view
C02	Sample military achievements at the front lines and their factors
C03	Evaluate with results how military achievements were moved to political ground.
C04	Compare multi-dimensional Mondros cease-fire agreement with Mudanya cease-fire agreement.
C05	Understand how Atatürk tried to improve Turkish Republic in the fields of politics, economics, law, education and culture
C06	Comprehend the importance of foreign affairs so that they will have the same ideas and ideals and behaviours as Atatürk had, with a consciousness of peace and stabilization with the help of Atatürk
C07	Comprehend aims and the importance of Atatürk's principles to defend them consciously.
C08	Research various visual and written sources, materials and documents related to these subjects

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	13	2	26
Hours for off-the-c.r.stud	1	5	5
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	1	5	5
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	5	5
<b>Total Work Load</b>			<b>41</b>
<b>ECTS Credit of the Course</b>			<b>1</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

134 INFORMATION AND COMMUNICATION TECHNOLOGY II					
Semester	Course Code	Course Name	L+P	Credit	ECTS
2	134	INFORMATION AND COMMUNICATION TECHNOLOGY II	2	2	2

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

The scope of the basic concepts of computer hardware, software, information networks, information security issues, file and folder operations, word, excel, power point, the concept and use of the internet, giving information on topics related to e-mail applications

**Teaching Methods and Techniques:**

Basic concepts, file management, word, excel, power point, internet and e-mail contains topics

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Ahmet YURDADUR

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Temel Bilgi teknolojileri I-II Book AKÜ
<b>Resources</b>	:	<a href="http://enformatik.aku.edu.tr/uzaktan-egitim-dersleri/bilgisayar-2/">http://enformatik.aku.edu.tr/uzaktan-egitim-dersleri/bilgisayar-2/</a>
<b>Documents</b>	:	<a href="http://enformatik.aku.edu.tr/uzaktan-egitim-dersleri/bilgisayar-2/">http://enformatik.aku.edu.tr/uzaktan-egitim-dersleri/bilgisayar-2/</a>
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	50	<b>Education</b>	:	
<b>Engineering</b>	:		<b>Science</b>	:	
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	50

**Course Content**

Week	Topics	Study Materials	Materials
1	Basic concepts		
2	File management- Application		
3	MS Word: Working with documents, improving productivity, entering text-Application		
4	Word: paragraph settings, styles, table creation, graphics and objects-Application		
5	Word: Address - mail merge, output preparation, control and print-Application		
6	Excel spreadsheet: to work with tables, insert, select, edit, sort, copy, move, delete-Application		
7	Mid-term and recourse		
8	Mid-term and recourse		
9	Excel: Rows, columns, worksheets, arithmetic formulas, functions-Application		
10	Excel: numbers, dates, alignment, graphics, output settings, control and print-Application		
11	Powerpoint Presentations: Presentations work, presentation, appearance, slides-Application		
12	Power point: the use of text, formatting, tables, graphics use, diagrams-Application		
13	Power point: Adding, editing, drawing, output preparation, control and provide-Application		
14	Internet and e-mail-Application		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Knows that the computer operating system the properties of the computer's hardware components
C02	Knows the information networks and properties
C03	The computer file copy, move, view file properties, file compression, decompression on the compressed files can
C04	Create a folder, rename the folder, the folder can delete, and edit operations
C05	Word text into a word processor program provides for adjustment of the line and paragraph
C06	Add Word table format your table
C07	Excel worksheet, row, column and cell selection, copy, move and delete operations will
C08	Knows the rules and formulas, the formulas work
C09	Slide on the text, tables, graphs and diagrams adds Takes on the slide makes editing and output
C10	Can modify the slide layout
C11	Information using the Internet reaches

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%100
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%160</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	14	2	28
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	1	5	5
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	5	5
<b>Total Work Load</b>			<b>66</b>
<b>ECTS Credit of the Course</b>			<b>2</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

118 DESIGN WITH COMPUTER					
Semester	Course Code	Course Name	L+P	Credit	ECTS
2	118	DESIGN WITH COMPUTER	2	1,50	3

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seğmeli

**Goals:**

In this course, aimed to gain knowledge and skills to make computer-aided design.

**Teaching Methods and Techniques:**

Basic Circuit Simulation Simulation of Analog Circuits Simulation of Digital Circuits Introduction to Printed Circuit program Draw the circuit in the program Creating Printed Circuit Scheme

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Theoretical, Question and Answer, computer applications.
<b>Resources</b>	:	Ders sunumları
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:		<b>Education</b>	:	
<b>Engineering</b>	:	20	<b>Science</b>	:	
<b>Engineering Design</b>	:	20	<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	60

**Course Content**

Week	Topics	Study Materials	Materials
1	Introduction to Simulation Program		
2	Simulation of Basic Circuits		
3	Simulation of Basic Circuits		
4	Simulation of Analog Circuits		
5	Simulation of Analog Circuits		
6	Simulation of Digital Circuits		
7	Simulation of Digital Circuits		
8	Introduction to Printed Circuit program		
9	Midterm Exam and Course Repetition		
10	Midterm Exam and Course Repetition		
11	Introduction to Printed Circuit program		
12	Draw the circuit in the program		
13	Draw the circuit in the program		
14	Creating Printed Circuit Scheme		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Recognizes the simulation program.
C02	Makes the simulation of basic circuits.
C03	Makes the simulation of analog circuits.
C04	Makes the simulation of digital circuits.
C05	Recognize the Printed Circuit program and creates printed circuit diagram.
C06	Makes the circuit drawing in the program

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle. Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	10	2	20
Assignments	10	2	20
Presentation	0	0	0
Mid-terms	1	11	11
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	11	11
<b>Total Work Load</b>			<b>90</b>
<b>ECTS Credit of the Course</b>			<b>3</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

136 ELECTRIC POWER PLANTS					
Semester	Course Code	Course Name	L+P	Credit	ECTS
2	136	ELECTRIC POWER PLANTS	2	1,50	3

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seçmeli

**Goals:**

In this course, electrical energy generation sources and aims to teach the operating principles of power plants and power plants.

**Teaching Methods and Techniques:**

1 Elektrik enerjisi elde edilme yöntemlerini bilmek 2 Termik santrallerin işleyişini bilmek 3 Termik santrallerin işleyişini bilmek 4 Nükleer santrallerin işleyişini bilmek 5 Hidroelektrik santrallerin işleyişini bilmek 6 Hidroelektrik santrallerin işleyişini bilmek 7 Yenilenebilir Enerji santrallerin işleyişini bilmek 8 Ders tekrarı ve sınav 9 Ders tekrarı ve sınav 10 Enerji Santrallerinde oluşan arızaları bilmek, koruma rollerini seçmek ve montajını yapmak 11 Parafudur, sigorta montajını yapmak 12 Parafudur, sigorta montajını yapmak 13 Kuranportör montajını yapmak 14 Kuranportör montajını yapmak

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Electric power plants, electricity generation lecture notes.
<b>Resources</b>	:	
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	15	<b>Education</b>	:	
<b>Engineering</b>	:	20	<b>Science</b>	:	20
<b>Engineering Design</b>	:	20	<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	25

**Course Content**

Week	Topics	Study Materials	Materials
1	A brief history of energy production and energy production in Turkey. Our country's installed capacity, annual production at		
2	Electrical energy is themed on some of the concepts of efficiency, organizations and marginal cost comparisons, reliability,		
3	To know the methods of obtaining electrical energy, understanding the importance of practice in our country.		
4	Electricity economics, load curves, electrical unit cost calculator and central cost comparisons, costs of energy generated is!		
5	Resources used in the production of electrical energy, solid, liquid or gas		
6	Plant varieties are used in the production of electrical energy, thermal power stations, fuels and combustion, laws of therm		
7	Plant varieties are used in the production of electrical energy, gas turbine and combined cycle power plants, natural gas pl		
8	Mid-term exam		
9	Mid-term exam		
10	Plant varieties are used in the production of electrical energy, thermal power stations, fuels and combustion, laws of therm		
11	Plant varieties are used in the production of electrical energy, hydroelectric power plants (HPP), study of natural water resc		
12	Alternative energy sources, wind, wave, geothermal, hydrogen, biogas, biomass, such as introduction of alternative energy		
13	Alternative power plants, wave, geothermal, biogas, biomass plants, introduction of alternative energy such as hydrogen,		
14	Alternative power plants, wind, solar and nuclear power plants examination ..		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Knows the methods of obtaining electrical energy.
C02	Knows the types and working principles of electric power plants.
C03	Knows that the operation of renewable energy power plants ..
C04	Knows of the failures in power stations, selects and assembles the protection relays.
C05	Power Line Carrier learns to work the system.
C06	High-voltage fuses and arresters learns shapes.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious.
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	12	2	24
Assignments	2	9	18
Presentation	0	0	0
Mid-terms	1	10	10
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	10	10
<b>Total Work Load</b>			<b>90</b>
<b>ECTS Credit of the Course</b>			<b>3</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant






# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

138 HOME DEVICES					
Semester	Course Code	Course Name	L+P	Credit	ECTS
2	138	HOME DEVICES	2	2	3

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seğmeli

**Goals:**

Structures with electrical household appliances, operation principles, learn the most common failures, breakdown and repair of test

**Teaching Methods and Techniques:**

Kitchen oven, cooker, mixer, third tumor, and he Heater, air conditioner, exhaust fan, refrigerator, washing machine and dishwasher, vacuum cleaner, a carpet of the working principles of home appliances such as washing machines, electrical circuits, troubleshooting and maintenance procedures to learn.

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

Textbook :  
Resources :  
Documents :  
Assignments :  
Exams :

**Course Category**

Mathematics and Basic Sciences	: 10	Education	:
Engineering	: 10	Science	:
Engineering Design	: 20	Health	:
Social Sciences	:	Field	: 60

**Course Content**

Week	Topics	Study Materials	Materials
1	Explanation of the general operating principles of heating appliances and room heaters structures, operating principles, exp		
2	Irons structures, operating principles, failures		
3	Electric Cooker with the operating principles of electric ovens, failures, and told		
4	Hair dryer and hair care machines working principles, explaining failures and		
5	Aspirators and ventilators		
6	Air-conditioners		
7	Midterm exam and repetition of the subject		
8	Midterm exam and repetition of the subject		
9	Refrigerators and freezers working principles, explaining failures and		
10	Fruit squeezing machines, operating principles, explaining failures and. Electric mixer and robots working principles, explai		
11	The operating principles of electric washing machines, failures, and told		
12	Dishwashers with the working principles, explaining failures and		
13	The operating principles of carpet cleaning machines and vacuum cleaners, failures, and told		
14	The operating principles of electric mini-hand sweepers, failures, and told		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Bed-heaters, ovens, hair dryers, irons, household appliances such as microwave oven
C02	Cooker hoods, fans, air conditioners, refrigerators and coolers operating principles, such as ventilation, electrical circuits and failures might recognition, learning the techniques of repair
C03	Mixer, food processor, chopper kitchen electric appliances, such as fruit boring operation principles, the electrical circuits and failures might recognition, learning the techniques of repair
C04	Washing machine, dishwasher, washer, electric household appliances, such as operating principles, the electrical circuits and failures might recognition, learning the techniques of repair
C05	Vacuum Cleaner, Carpet washing machine, computer cleaner, home appliances, such as the working principles of vakumlayıcı, electrical circuits and failures might recognition, learning the technique

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle. Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%80
Quizzes	0	%0
Assignment	2	%20
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%160</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	10	2	20
Assignments	2	5	10
Presentation	1	5	5
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>79</b>
<b>ECTS Credit of the Course</b>			<b>3</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

128 VOCATIONAL MATHEMATICS					
Semester	Course Code	Course Name	L+P	Credit	ECTS
2	128	VOCATIONAL MATHEMATICS	3	3	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

Increasing the ability of basic arithmetic and algebraic operation and it is aimed to know the basic mathematical and geometrical definitions. In addition, these basic mathematical concepts used in practice to know which areas and fields to associate with.

**Teaching Methods and Techniques:**

The course provides using fundamental mathematical knowledges efficiently in business life and to know practical areas

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Ali BALKI

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Theoretical expression question-answer, testing and practical techniques.
<b>Resources</b>	:	General Mathematics, Associate Professor Dr. Hüseyin Yıldırım, Afyon Kocatepe University Press, 1998., General Maths., Professor Dr. Mustafa Balç
<b>Documents</b>	:	Tüm Temel ve Mesleki Matematik Ders Kitapları ve Notları
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	80	<b>Education</b>	:	
<b>Engineering</b>	:	5	<b>Science</b>	:	5
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	10

**Course Content**

Week	Topics	Study Materials	Materials
1	Logic and its applications.		
2	The Theory of Sets		
3	Operations on Real numbers and their properties.		
4	Exponential and Rooted numbers		
5	Absolute value, the exact value and applications		
6	Equation and equation systems		
7	Midterm Exams and Course Repetitions		
8	Midterm Exams and Course Repetitions		
9	Inequalities and solutions.		
10	The properties of relation and function.		
11	Special functions and graphic drawings.		
12	Trigonometric functions.		
13	analytics of straight line and applications		
14	Conics and applications.		
15	Final Exams		
16	Final Exams		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Understanding general mathematics knowledge and using this knowledge intercommunicating with their field.
C02	Reaching the result with mathematics knowledge and being able to use this with the other aims.
C03	Being able to solve the problems about their field, using standard mathematical methods.
C04	For mathematical calculations, being able to use computer programs.
C05	Being able to use mathematical calculation appliances.
C06	Being able to comment obtained results.
C07	Improving practice thinking and making quick decision ability.
C08	Analysing all situations which can come across.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	14	6	84
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>114</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

130 BASIC ELECTRONICS					
Semester	Course Code	Course Name	L+P	Credit	ECTS
2	130	BASIC ELECTRONICS	3	2,50	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

With this course, students will recognize basic elements of electronic circuits and circuits able, to compare the input and output signals.

**Teaching Methods and Techniques:**

1 - 1-phase diode rectifier 2 - 1-phase diode rectifier 3 - 3-phase diode rectifier 4 - 3-phase diode rectifier 5 - install the filter circuits 6 - install the filter circuits 7 - Using the switching component Transistörün 8 - Examination and repeating courses 9 - Examination and repeating courses 10 - Establishment of regulated circuits 11 - TransistörYükselteç circuits 12 - Transistor Amplifier Circuits 13 - Operational amplifier circuits 14 - Operational amplifier circuits

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Electronic circuit elements, lecture notes.
<b>Resources</b>	:	Ders Sunumları
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	20	<b>Education</b>	:	
<b>Engineering</b>	:	20	<b>Science</b>	:	20
<b>Engineering Design</b>	:	20	<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	20

**Course Content**

Week	Topics	Study Materials	Materials
1	Conductor, insulator and semiconductor		
2	Diyotlar, karakteristikleri ve uygulamaları		
3	Zener Diodes and Their Applications		
4	Introduction BJT transistors		
5	BJT transistor DC bias circuits		
6	BJT transistor amplifier circuits		
7	FET transistors and varieties		
8	Ara sınav		
9	Ara sınav		
10	Makes functional analysis of transistor circuits		
11	Classify the types of feedback		
12	Describes the operation of the oscillators		
13	Recognizes the fundamental oscillator		
14	Allows the usage of Operational Amplifiers		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Rectifier circuits can.
C02	Sets of filter circuits.
C03	Uses a transistor as switching element.
C04	Establishes the regulated circuit.
C05	Phase inverting amplifier circuit builds.
C06	Phase non-inverting amplifier circuit builds.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	12	3	36
Assignments	2	10	20
Presentation	0	0	0
Mid-terms	1	11	11
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	11	11
<b>Total Work Load</b>			<b>120</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

132 ELECTRICAL MACHINERY AND DIRECT CURRENT TRANSFORMER					
Semester	Course Code	Course Name	L+P	Credit	ECTS
2	132	ELECTRICAL MACHINERY AND DIRECT CURRENT TRANSFORMER	4	3,50	4

### Language of Instruction:

Turkish

### Course Level:

Associate

### Work Placement(s):

No

### Department / Program:

ELECTRICITY

### Course Type:

Zorunlu

### Goals:

Transformers and Direct Current (DC) to understand the operating principles of electrical machines and structures, DA armature winding machine diagrams to understand structures, transformers and DC machines, perform calculations, different working patterns, with a special type of transformers, DC machines, introduction of special type.

### Teaching Methods and Techniques:

DA structure and operating principles of electric machines, armature winding required for calculations, drawing diagrams armature winding, armature reaction and commutation machines, DA, DA DA engines, generators and parallel to the binding, DC motors, electric motors opposing force (emf), engine speed adjustment DA, DA loss of engine efficiency, sample problems, a special type of DC machines, transformers operating principles, structures, single and three phase transformers, winding connections, work patterns, parallel connection of transformers, sample problems, a special type transformers.

### Prerequisites:

### Course Coordinator:

### Instructors:

Instructor Abdil KARAKAN

### Assistants:

### Recommended Sources

Textbook	:	[1]Adem Altunsaçlı Electrical Machines-1
Resources	:	
Documents	:	labaratuvar cihazları
Assignments	:	
Exams	:	

### Course Category

Mathematics and Basic Sciences	:	25	Education	:	
Engineering	:	25	Science	:	25
Engineering Design	:		Health	:	
Social Sciences	:		Field	:	25

### Course Content

Week	Topics	Study Materials	Materials
1	Magnetism, magnetic flux, and the induction event, electro-motor force induced in a conductor and the coil (emf) disclosure		lecture notes
2	DA generator excitation types, series and shunt generator characteristics and komputir stimulated, problem solutions.		Lecture notes
3	DA machines, armature windings, armature winding and parallel to the winding properties of accounts, parallel to the arma		lecture notes
4	DA series machines features of armature windings, series armature winding schemes.		lecture notes
5	DA engine working principle, the opposite of em, DA engine speed, change the direction of rotation, torque and mechanica		Lecture notes
6	DA in the engine at idle and operating characteristics of different loads, road-making.		Lecture notes
7	Loss of DA engine, braking and yield analysis, sample problems.		Lecture Notes
8	One-phase structures and operating principles of transformers, coils induced emf 's calculation, the conversion rate and pc		Lecture notes
9	Midterm exam and repeating courses		
10	The transformer is idle and loaded operation, phasor diagrams, equivalent circuits ed from Loop, iron and copper losses, sa		Lecture notes
11	Regulating transformer, Losses and efficiency.		Lecture notes
12	The three-phase transformer core and winding structures, linking groups, voltage, current relations		Lecture Notes
13	Three-phase transformers connected in parallel and charge distribution, sample problems.		lecture notes
14	Auto transformers, welding transformers, voltage and current (measure) transformers		Lecture Notes

### Course Learning Outcomes

No	Learning Outcomes
C01	DC electrical machines, structures and understand the operating principles of
C02	will also make the necessary calculations for enuvi winding schemes, and different characteristics of the understanding of the types of winding
C03	DA motors, generators and learning accounts and the efficiency of different working patterns
C04	Transformers structures, the recognition of the operating principles of
C05	One and three-phase transformers of different forms of connection and understanding of work

### Program Learning Outcomes

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle. Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	2	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	4	56
Hours for off-the-c.r.stud	6	3	18
Assignments	3	3	9
Presentation	0	0	0
Mid-terms	2	10	20
Practice	0	0	0
Laboratory	0	0	0
Project	3	4	12
Final examination	1	6	6
<b>Total Work Load</b>			<b>121</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant






# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

102 TURKISH LANGUAGE II					
Semester	Course Code	Course Name	L+P	Credit	ECTS
2	102	TURKISH LANGUAGE II	2	2	1

### Language of Instruction:

Turkish

### Course Level:

Associate

### Work Placement(s):

No

### Department / Program:

ELECTRICITY

### Course Type:

Zorunlu

### Goals:

The aims of this course are to get students comprehend their mother tongue's grammar rules and structure.

### Teaching Methods and Techniques:

The followings are aimed for the students in this course: To teach Turkish phonetics and morphology To gain the academic writing and speaking ability. To teach the written and speaking tips. To comprehend the unifying feature of lingua franca in education and importance of using the lingua franca according to its rules.

### Prerequisites:

### Course Coordinator:

### Instructors:

Instructor Özge SÖNMEZLER DURAN

### Assistants:

### Recommended Sources

<b>Textbook</b>	:	Theoretical knowledge, Sampling, Practice
<b>Resources</b>	:	Textbook:
<b>Documents</b>	:	Türk Dili Ders Kitabı, Afyon Eğitim Sağlık ve Bilim Araştırma Vakfı Yayını, Afyonkarahisar, 2010
<b>Assignments</b>	:	
<b>Exams</b>	:	References: Türkçe Sözlük. TDK Yayınları. Ankara 2009

### Course Category

<b>Mathematics and Basic Sciences</b>	:		<b>Education</b>	:	
<b>Engineering</b>	:		<b>Science</b>	:	
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:	50	<b>Field</b>	:	50

### Course Content

Week	Topics	Study Materials	Materials
1	Failures of statement	Anlatım Bozukluğu örnekleri bulunması	
2	Informations of composition	Kompozisyon hakkında kitaptan bölüm o	
3	Writing of composition	Bir atasözünün açıklanarak gelinmesi	
4	The methods of statement in composition	Kompozisyonda anlatım biçimlerinin kiti	
5	Types of written statement - I	Yazılı Anlatım Türleri hakkında araştırma \	
6	Types of written statement - II	Yazılı Anlatım Türleri hakkında araştırma	
7	Types of written statement - III	Örnek Soru çözümü	
8	Mid term	Örnek soru çözümü	
9	Types of Narrative	Anlatı Yazılar hakkında internetten araştı	
10	Correspondences	Bir Dilekçe yazılarak ve özgeçmiş yazara	
11	Types of poetry	Beğenilen şiir örneklerinin getirilmesi	
12	Verbal statement and features of expression in Turkish	Kitaptan Sözlü Anlatım ve Türkçenin Söyl	
13	Types of speeches to audience	Topluluk önünde konuşmalardan birinin	
14	Techniques of preparation on articles	Bilimsel Yazıları Hazırlama Tekniklerinin	

### Course Learning Outcomes

No	Learning Outcomes
C01	Speak and write in accordance with the rules of Turkish.
C02	Know the written tips and write in accordance with the rules of these tips.
C03	Know the speaking tips and make a speech in accordance with the rules of these tips.
C04	Know the rules of lingua franca and apply them.
C05	Make a speech to audience properly.
C06	Write a scientific papers regularly.

### Program Learning Outcomes

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	14	2	28
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>58</b>
<b>ECTS Credit of the Course</b>			<b>2</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

110 FOREIGN LANGUAGE II					
Semester	Course Code	Course Name	L+P	Credit	ECTS
2	110	FOREIGN LANGUAGE II	2	2	2

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seğmeli

**Goals:**

Provide students to use English accurate and meaningful and to acquire reading, writing, speaking knowledge by learning basic grammar rules.

**Teaching Methods and Techniques:**

Prepositions of time, Polite requests, Jobs, Present simple and continuous, Places to go and events, Past simple, Making arrangements, School subjects, Parts of the body, Buying medicine, Problems, Medicines, Travel, Going to, Sequences, Food, Countable and uncountable nouns, Quantities, Menu, At a restaurant, Clothes, Adjectives, At the post office, Have to, On the telephone, The weather, Comparatives and superlatives, Compass directions, Geographical features, Paragraph planning, Giving measurements, Everyday jobs

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Kemal Muhammet ERTEN

**Assistants:****Recommended Sources**

<b>Textbook</b>	: English for Life Book, Workbook, Turkish Companion Grammar and Vocabulary, Tom Hutchinson, Carol Tabor, Jenny Quintana, OXFORD University
<b>Resources</b>	: Murat Kurt, English Grammar Today, Suat AKca, Practical English
<b>Documents</b>	:
<b>Assignments</b>	:
<b>Exams</b>	:

**Course Category**

<b>Mathematics and Basic Sciences</b>	: 10	<b>Education</b>	: 10
<b>Engineering</b>	:	<b>Science</b>	: 10
<b>Engineering Design</b>	:	<b>Health</b>	: 10
<b>Social Sciences</b>	: 50	<b>Field</b>	: 10

**Course Content**

Week	Topics	Study Materials	Materials
1	Lesson 31-32-33: Prepositions of time, Polite requests, Jobs		
2	Lesson 34-35-36: Present simple and continuous, Reading, That's life episode 5		
3	Lesson 37-38-39-40: Places to go and events, Past simple, Reading, Making arrangements		
4	Lesson 41-42-43-44: School subjects, Past simple, Reading, That's life episode 6		
5	Lesson 45-46-47: Parts of the body, Past simple, Reading		
6	Lesson 48-49-50-51: Buying medicine, Problems, Medicines, Travel, Going to, Sequences		
7	Midterm exam and lesson repetition		
8	Midterm exam and lesson repetition		
9	Lesson 52-53-54: That's life episode 7, Food, Countable and uncountable nouns		
10	Lesson 55-56-57-58: Quantities, Menu, At a Restaurant, Clothes, Adjectives		
11	Lesson 59-60-61: Reading, That's life episode 6, At the post office		
12	Lesson 62-63-64-65: Have to, Reading, On the telephone, The weather		
13	Lesson 66-67-68-70: Comparatives, Compass directions, That's life episode 9, Superlatives		
14	Lesson 69-71-72-73: Geographical features, Paragraph planning, Giving measurements, Everyday jobs		

**Course Learning Outcomes**

No	Learning Outcomes
C01	In accordance with listening skills, he recognizes words, becomes familiar with them, when one speaks slowly and clearly he understands the spoken.
C02	In accordance with reading skills, he understands simple and easy words and sentences.
C03	In accordance with speaking skills, he introduces himself, asks questions and answers with simple sentences.
C04	In accordance with writing skills, he writes personal information, paragraph, short text with simple words.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	14	1	14
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	1	10	10
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	10	10
<b>Total Work Load</b>			<b>62</b>
<b>ECTS Credit of the Course</b>			<b>2</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

100 INTERNSHIP I					
Semester	Course Code	Course Name	L+P	Credit	ECTS
2	100	INTERNSHIP I	0	0	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

It deems appropriate theoretical knowledge of subjects related to the student business application program

**Teaching Methods and Techniques:****Prerequisites:****Course Coordinator:**

Program Staj Komisyonu

**Instructors:****Assistants:****Recommended Sources**

Textbook	:
Resources	:
Documents	:
Assignments	:
Exams	:

**Course Category**

Mathematics and Basic Sciences	:	Education	:
Engineering	:	Science	:
Engineering Design	:	Health	:
Social Sciences	:	Field	: 100

**Course Content**

Week	Topics	Study Materials	Materials
1	Workplace Practice		
2	Workplace Practice		
3	Workplace Practice		
4	Workplace Practice		
5	Workplace Practice		
6	Workplace Practice		
7	Workplace Practice		
8	Workplace Practice		
9	Workplace Practice		
10	Workplace Practice		
11	Workplace Practice		
12	Workplace Practice		
13	Workplace Practice		
14	Workplace Practice		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Implementation issues to make the lessons learned
C02	To adapt to work life
C03	Reinforcement theory and practice together
C04	Business processes related to his job application
C05	Working to ensure discipline
C06	Follow them from solutions to the problems in business processes
C07	Field of domain
C08	Use tools to suit the sectoral

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	0	%0
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	0	%0
<b>Total</b>		<b>%0</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	15	8	120
Hours for off-the-c.r.stud	0	0	0
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	0	0	0
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>121</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

235 FAILURE ANALYSIS					
Semester	Course Code	Course Name	L+P	Credit	ECTS
3	235	FAILURE ANALYSIS	2	2	2

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seğmeli

**Goals:**

Understands the philosophy care and maintenance from past to today comprehendsthe importance of care and maintenance from the productionand producercompanies' point of view.

**Teaching Methods and Techniques:**

Maintenance: General maintenance, Proactive maintenance, Periodic maintenance; Fault Finding: To use avometer in fault finding; Repairing and Service; Checking of Oil in Power Transformer: Fault finding cause of short circuit and over load on electric networks, To replace of electric machines parts; Checking of Diodes, Transistors, Capacitance.

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	All of the elektric machines books
<b>Resources</b>	:	
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathmatics and Basic Sciences</b>	:	20	<b>Education</b>	:	
<b>Engineering</b>	:	20	<b>Science</b>	:	10
<b>Engineering Design</b>	:	10	<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	40

**Course Content**

Week	Topics	Study Materials	Materials
1	Fault isolation		
2	Fault isolation		
3	Finding the defective unit or element		
4	Finding the defective unit or element		
5	Finding the defective unit or element		
6	Finding the defective unit or element		
7	Midterm exam and repetition of the subject		
8	Midterm exam and repetition of the subject		
9	Finding the defective unit or element		
10	Finding the defective unit or element		
11	Catalog		
12	Catalog		
13	Archiving		
14	Archiving		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Perform system analysis..
C02	Resolve the identified failures.
C03	Failure and maintenance information to create, archive
C04	To use catalog.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	5	%20
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%120</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	10	2	20
Assignments	5	2	10
Presentation	0	0	0
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>60</b>
<b>ECTS Credit of the Course</b>			<b>2</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant






# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

225 ASEKRON AND SYNCHRONOUS MACHINES					
Semester	Course Code	Course Name	L+P	Credit	ECTS
3	225	ASEKRON AND SYNCHRONOUS MACHINES	4	3,50	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

Alternating Current (AC) machines, structures, operating principles to grasp, induction machines and synchronous machines gain the ability to make calculations for different working patterns, choosing to have knowledge of the machine to be used in practice.

**Teaching Methods and Techniques:**

Asynchronous and synchronous electrical machines, structures, connections and how they work, types of single phase asynchronous motors, the stator windings of three phase and single phase induction motors, three-phase asynchronous motors Connection of the network, a derivation of equivalent circuits of asynchronous motors, synchronous motors and starting methods, SM the power angle, torque, alternators stimulation, a special type of electrical machines

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	[1] Prof. Dr. İlhami ÇOLAK, Asenkron Motorlar, Kozan Ofset Basım Yayım 2005
<b>Resources</b>	:	[2] A. Hamdi SAÇKAN, Elektrik Makineleri III , MEB Yayınları, 1981
<b>Documents</b>	:	[3] A. Peşint, M. Gökaya, Elektrik Makineleri IV , MEB Yayınları, 1984
<b>Assignments</b>	:	(4) Adem Altunsacılı Elektrik makineleri-2
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	25	<b>Education</b>	:	
<b>Engineering</b>	:	25	<b>Science</b>	:	25
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	25

**Course Content**

Week	Topics	Study Materials	Materials
1	A synchronous machine (ASM), the structure, working principle and the occurrence of rotating magnetic field, speed of the		Lecture notes and laboratory equipment
2	ASM stator windings, one-phase windings of the structure and design of the ASM		Lecture notes and laboratory equipment
3	ASM stator windings, one-phase windings of the structure and design of the ASM		Lecture notes and laboratory equipment
4	The stator and rotor windings of the motor force of the electro-induced ASM (emf) in the calculation		Lecture notes
5	Asynchronous operation of the engine at idle and installed, to obtain equivalent circuits		Lecture notes and laboratory equipment
6	ASM in the power, torque, efficiency, problem solutions related to the subject		Lecture notes and laboratory equipment
7	Methods of giving rise to the ASM, speed control methods, the ASM's operating modes (engine, generator and braking)		Lecture notes and laboratory equipment
8	1-phase ASM varieties ASM banded help, reluctance motors, shade pole motor, ASM's where they are used, the engine		Lecture notes and laboratory equipment
9	Midterm exam		
10	The three-phase synchronous generators (SG), and principles, emf obtained in SG, SG in the stimulation, voltage regulator		Lecture notes and laboratory equipment
11	SG in the power, and yield losses, SG's and load sharing in parallel operation.		Lecture notes and laboratory equipment
12	Synchronous motors (SM) structure, giving way lara SM methods, equivalent circuits, the SM in a "V" curves		Lecture notes and laboratory equipment
13	SM or power, the power angle, torque, power correction coefficient, the oscillation SM, sample problems.		Lecture notes
14	Permanent magnet synchronous motors and SM's applications.		Lecture notes

**Course Learning Outcomes**

No	Learning Outcomes
C01	AC electric machinery structure, working principles of the recognition
C02	1-phase asynchronous motors (ASM) as the work of the clutch
C03	3-phase coupling as the work of the different ASM
C04	AA stator winding machines and winding schemes, understanding accounts
C05	Synchronous generators structures, recognition of the working principles of
C06	The operation of synchronous motors and coupling structures

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious.
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	1	%25
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%125</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	4	56
Hours for off-the-c.r.stud	6	3	18
Assignments	3	3	9
Presentation	0	0	0
Mid-terms	2	10	20
Practice	0	0	0
Laboratory	0	0	0
Project	3	4	12
Final examination	1	6	6
<b>Total Work Load</b>			<b>121</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

229 COMPUTER-AIDED PROJECT I					
Semester	Course Code	Course Name	L+P	Credit	ECTS
3	229	COMPUTER-AIDED PROJECT I	3	2,50	3

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

Technical drawing and writing the norm. To make the basic geometric drawings. Computer-aided to make the basic geometric drawings and computer-aided project to draw

**Teaching Methods and Techniques:**

Basic Drawing Techniques. Appearance And Removing the painting to the Perspective Section, Layers, Colors and Lines Program Features, Drawing Screen, Measurement, Basic Drawing Commands Basic. Basic Drawing Commands, Basic Plumbing Drawings. Installation Drawing on the architectural plan

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

**Textbook** :  
**Resources** :  
**Documents** :  
**Assignments** :  
**Exams** :

**Course Category**

<b>Mathematics and Basic Sciences</b> : 10	<b>Education</b> :
<b>Engineering</b> : 20	<b>Science</b> :
<b>Engineering Design</b> : 20	<b>Health</b> :
<b>Social Sciences</b> :	<b>Field</b> : 50

**Course Content**

Week	Topics	Study Materials	Materials
1	Basic Drawing Techniques		
2	Drawing to a given object		
3	Appearance And Removing the painting to the Perspective Section		
4	Appearance And Removing the painting to the Perspective Section, Layers, Colors and Lines		
5	Layers, Colors and Lines, Program Features, Drawing Screen, Dimensioning		
6	Program Features, Drawing Screen, Measurement, Basic Drawing Commands Basic		
7	Midterm exam and repetition of the subject		
8	Midterm exam and repetition of the subject		
9	Basic Drawing Commands, Basic Plumbing Drawings		
10	Basic installation Drawing		
11	Basic installation Drawing, Architectural Plan Drawing on the Plumbing		
12	Installation Drawing on the architectural plan		
13	Installation Drawing on the architectural plan		
14	Installation Drawing on the architectural plan		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Technical drawing,
C02	Writing the norm,
C03	To make the basic geometric drawings
C04	Computer-aided to make the basic geometric drawings.
C05	Computer-aided project to draw

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle. Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	5	%20
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%120</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	10	2	20
Assignments	5	3	15
Presentation	0	0	0
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	5	2	10
Final examination	1	1	1
<b>Total Work Load</b>			<b>89</b>
<b>ECTS Credit of the Course</b>			<b>3</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

227 ELECTRIC POWER TRANSMISSION AND DISTRIBUTION					
Semester	Course Code	Course Name	L+P	Credit	ECTS
3	227	ELECTRIC POWER TRANSMISSION AND DISTRIBUTION	2	1,50	2

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

In this course, the introduction of materials of all kinds of high-voltage networks, aimed to gain qualifications for the installation of the operations.

**Teaching Methods and Techniques:**

to install electric pole Poles Travers, to make the console installation Insulators and other elements to assemble Overhead line cables and connections to attract Poles, fittings and lines to maintain OTL fix the failures Power Transformer to assemble Instrument Transformers to assemble Busbar system to assemble To assemble the differential Cutting to assemble Switching systems eliminate the failures Maintain panels and Measurement Systems

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

Textbook	:
Resources	:
Documents	:
Assignments	:
Exams	:

**Course Category**

Mathematics and Basic Sciences	: 15	Education	:
Engineering	: 20	Science	: 15
Engineering Design	: 15	Health	: 10
Social Sciences	: 10	Field	: 15

**Course Content**

Week	Topics	Study Materials	Materials
1	Transmission and Distribution of the concepts discussed, far and near distance energy transport properties, general inform		
2	Learning Varieties of Energy Distribution systems (network structure), Analysis of the advantages and disadvantages ..		
3	In our country forward and used in the distribution system, voltage values ??give information about the		
4	Understanding of the issues to be considered in choosing the route distribution lines		
5	Used in power transmission lines, poles, sleepers (consoles), the recognition of insulators. types, properties, and to selectic		
6	Overhead line conductors, classification, characteristics and selections. Lines deflection.		
7	LV and HV transmission and distribution lines, cross section, flow control, and to account for the voltage drop.		
8	mid term exam		
9	mid term exam		
10	Distribution underground cables are used in the specifications, types and selections.		
11	Characteristics of distribution transformers and transformer types of mail.		
12	Calculation of the required installed power transformer, power transformer selection of the norm, the transformer in the se		
13	The opening and closing elements, separators, power dividers, cutters, power switches.		
14	Protection elements, surge arresters, MV / LV fuses, relays, protection wires.		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Recognition of the power transmission and distribution networks
C02	Power transmission and distribution networks, understanding the characteristics and conditions of the running
C03	UNDERSTANDING the rules for overhead line route tepsiti.
C04	Overhead line conductors, poles, ızalotörlerin, sleepers recognition of the understanding of the principles of choice
C05	LV and MV voltage drop test must be
C06	Transformers, transformer power transformer mails account and to learn varieties.
C07	Substations and transmission lines, field and Salt: switching, protection and allows measuring elements, understand the rules of safe operation.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	4	2	8
Assignments	2	4	8
Presentation	0	0	0
Mid-terms	1	6	6
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	10	10
<b>Total Work Load</b>			<b>60</b>
<b>ECTS Credit of the Course</b>			<b>2</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

215 ELECTRO MECHANICS AND CONTROL SYSTEM (ELECTIVE)					
Semester	Course Code	Course Name	L+P	Credit	ECTS
3	215	ELECTRO MECHANICS AND CONTROL SYSTEM (ELECTIVE)	3	2,50	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

Control input, output and protection staff working Nursery Trees, symbols, standards, selection and teaching of using these elements of industrial control applications

**Teaching Methods and Techniques:**

Command and control systems, objectives, goals and features, control systems, input and output elements, symbols and standards, the selection of automation, protection devices, industrial applications

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	[1] Ö. Badur, Otomatik Kumanda İstanbul, 1980
<b>Resources</b>	:	[2] A. Görkem, Elektro mekanik Kumanda Sistemleri, Ankara, 2003
<b>Documents</b>	:	[3] A. Görkem, Atölye-II Kumanda Uyg., Ankara, 1998
<b>Assignments</b>	:	[4] Ö. Badur, Elektrik Kumanda Devreleri, MEB, 1991
<b>Exams</b>	:	Kumanda Atelvesi

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	10	<b>Education</b>	:	
<b>Engineering</b>	:	25	<b>Science</b>	:	10
<b>Engineering Design</b>	:	15	<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	40

**Course Content**

Week	Topics	Study Materials	Materials
1	General principles of command and control		Lecture Notes
2	Monitoring and control circuit drawing rules, symbols, standards		Lecture Notes
3	Command and control elements: buttons, relay, contactor and so on.		Lecture notes and materials required
4	Command and control elements: Time relays, level, flow, limit switches, and so on.		Lecture notes and materials required
5	Example problem solutions and designs		Lecture Notes
6	Limit switches and proximity control, photoelectric, inductive and capacitive proximity switches, and sample applications		Lecture notes and materials required
7	Protection and control devices, thermal-magnetic acaklar, over / low voltage relays, liquid level relays, reactive power relay		Lecture notes and materials required
8	Manual control, remote control, locking methods, and applications		Lecture notes and materials required
9	Mid-term exam		
10	Methods and applications in engines, giving way		Lecture notes and materials required
11	Methods and applications in engines, giving way		Lecture notes and materials required
12	Speed Controllers and applications		Lecture notes and materials required
13	Braking methods and applications of electric motors		Lecture notes and materials required
14	Selection of Control; Example problem solutions and designs		Lecture notes and materials required

**Course Learning Outcomes**

No	Learning Outcomes
C01	Command and control systems allow the main principles of
C02	Distinguish between national and international symbols and standards, and implements
C03	Control uses the input elements
C04	Control uses the output elements
C05	Applies the electric motor protection systems
C06	Electric motors starting, stopping, accelerating, braking applications, design

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle. Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	1	%25
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%125</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	5	3	15
Assignments	4	3	12
Presentation	0	0	0
Mid-terms	2	5	10
Practice	0	0	0
Laboratory	0	0	0
Project	3	3	9
Final examination	1	4	4
<b>Total Work Load</b>			<b>92</b>
<b>ECTS Credit of the Course</b>			<b>3</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant






# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

239 ENTREPRENEURSHIP I					
Semester	Course Code	Course Name	L+P	Credit	ECTS
3	239	ENTREPRENEURSHIP I	2	1,50	3

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seçmeli

**Goals:**

Entrepreneurship courses, initiatives, issues related to the concepts of entrepreneurial learning, entrepreneurship explain the key concepts and theoretical framework aims at establishing a bridge between applications in daily life. The assumption, of course, each student taking this course can build your own business is not successful. Our goal is the active participation of students and frequently encountered examples of entrepreneurial success and failure in a healthy way to analyze more

**Teaching Methods and Techniques:**

In this course, the entrepreneur characteristics, sex factor, entrepreneurship, entrepreneurial culture and entrepreneurial types examined.

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Mahmut Tekin Girişimcilik AÖF Yayınları, Girişimcilik, Michael Gerber Girişimcilik Tutkusu
<b>Resources</b>	:	
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:		<b>Education</b>	:	10
<b>Engineering</b>	:		<b>Science</b>	:	10
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:	30	<b>Field</b>	:	50

**Course Learning Outcomes****No Learning Outcomes**

C01	Understand Who They are and Who the Entrepreneurship is not
C02	Explains the basic concepts of the subject entrepreneurship
C03	Draws a frame of real-life examples of entrepreneurship
C04	Becomes aware of the different aspects and dimensions of the issue of entrepreneurship
C05	Challenges faced by entrepreneurs gain awareness and knows ways to search for a solution to these problems

**Program Learning Outcomes****No Learning Outcome**

P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	2	4	8
Assignments	1	8	8
Presentation	0	0	0
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>46</b>
<b>ECTS Credit of the Course</b>			<b>2</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

231 POWER ELECTRONICS I					
Semester	Course Code	Course Name	L+P	Credit	ECTS
3	231	POWER ELECTRONICS I	2	2	3

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seğmeli

**Goals:**

In this course, purpose is to gain knowledge and skills related to the applications of semi-conductor switching elements, rectifier and chopper circuit .

**Teaching Methods and Techniques:**

Thyristors Thyristor Trigger Circuits Triac and Diac, MOSFETs, IGBTs Uncontrolled Single Phase Rectifier Circuits Controlled Single Phase Rectifier Circuits Three-Phase Controlled Rectifier Circuits Three-Phase Controlled Rectifier Circuits Inverters

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Lecture, Question and answer, homework
<b>Resources</b>	:	Güç Elektroniği Meslekçi Eğitim Semineri, TMMOB yayını, U. Arifoglu, Güç Elektroniği ,ITU, ,Harun Bayram, Elektronik, Zafer Matbaası
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	20	<b>Education</b>	:	
<b>Engineering</b>	:	20	<b>Science</b>	:	10
<b>Engineering Design</b>	:	20	<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	30

**Course Content**

Week	Topics	Study Materials	Materials
1	Thyristors		
2	Thyristor Trigger Circuits		
3	Triac and Diac, MOSFETs, IGBTs		
4	Uncontrolled Single Phase Rectifier Circuits		
5	Uncontrolled Single Phase Rectifier Circuits		
6	Uncontrolled Three-Phase Rectifier Circuits		
7	Uncontrolled Three-Phase Rectifier Circuits		
8	Three-Phase Controlled Rectifier Circuits		
9	Midterm Exam and Course Repetition		
10	Midterm Exam and Course Repetition		
11	Three-Phase Controlled Rectifier Circuits		
12	Inverters		
13	Inverters		
14	Inverters		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Comprehend basic concepts of power electronics and power semi conductivity
C02	Comprehend basic principles of power converters
C03	Comprehend operational characteristics and functions of single phase rectifier circuits
C04	Comprehend operational characteristics and functions of three phase rectifier circuits
C05	Comprehend operational characteristics of inverter circuits
C06	Comprehend functions of inverter circuits

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle. Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	12	2	24
Assignments	3	2	6
Presentation	0	0	0
Mid-terms	1	9	9
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	9	9
<b>Total Work Load</b>			<b>90</b>
<b>ECTS Credit of the Course</b>			<b>3</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

233 PANEL DESIGN AND INSTALLATION					
Semester	Course Code	Course Name	L+P	Credit	ECTS
3	233	PANEL DESIGN AND INSTALLATION	2	2	3

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seçmeli

**Goals:**

Elektrik tesislerinde ve otomasyon sistemlerinde kullanılan panoların yapılarını ve imalat tekniklerini öğrenmek, karşılaşılan arızaların test edilmesi ve onarımlarını yapabilecek bilgi ve beceriyi kazanmak.

**Teaching Methods and Techniques:**

Aydınlatma panosu, kompanzasyon panoları güç panosu, kumanda panosu, orta gerilim trafo panoları, ve yüksek gerilim ölçme hücreleri gibi elektrik panolarında kullanılan elemanların tanıtılması, devrelerinin incelenmesi ve imalatının öğrenilerek, arıza ve bakım işlemlerinin kavranması.

**Prerequisites:****Course Coordinator:**

Instructor Mehmet Süzme

**Instructors:****Assistants:****Recommended Sources**

<b>Textbook</b>	:	[1] Yrd. Doç. Dr. M. Server FIRAT, ?Elektrik Panoları Ders Notları?, SAU, 2012
<b>Resources</b>	:	
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:		<b>Education</b>	:	
<b>Engineering</b>	:	10	<b>Science</b>	:	10
<b>Engineering Design</b>	:	20	<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	60

**Course Content**

Week	Topics	Study Materials	Materials
1	Characteristics and the use of tools and equipment used in the construction of electrical panels explaining		Lecture notes
2	Types of switches used in electrical panels, explaining the features and operating principles		Lecture notes
3	Explanation of features and operating principles used in electrical panels, types of insurance		Lecture notes
4	Describe the design and construction of single-phase electric lighting installation panels		Lecture notes
5	Explanation of the main board design and construction of a three-phase installation		Lecture notes
6	Explanation of the internal circuit boards, drawing one and three-phase systems		Lecture notes
7	Design and construction of electrical panels describe three-phase power system		Lecture notes
8	Drawing boards explaining the internal circuits of electrical three-phase power system		Lecture notes
9	Mid-term exam		
10	Medium voltage substation design and construction of panels explaining mail		Lecture notes
11	Describe the design and construction of high-voltage measuring cell panels		Lecture notes
12	Describe the design and construction of the control distribution panels		Lecture notes
13	Describe the design and construction of the operator control panels		Lecture notes
14	Design and construction of panels explaining the compensation		Lecture notes

**Course Learning Outcomes**

No	Learning Outcomes
C01	supply panels used in residential structures, and components used in the preparation of the learning
C02	Types of switches used in electrical panels, explaining the features and operating principles
C03	Explanation of features and operating principles used in electrical panels, types of insurance
C04	Describe the design and construction of single-phase electric lighting installation panels
C05	High and medium voltage panels structures, used in the preparation of the elements and Learning
C06	Control panels structures, used in the preparation of the elements and Learning

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	6	2	12
Assignments	3	3	9
Presentation	0	0	0
Mid-terms	1	5	5
Practice	0	0	0
Laboratory	0	0	0
Project	3	4	12
Final examination	1	10	10
<b>Total Work Load</b>			<b>90</b>
<b>ECTS Credit of the Course</b>			<b>3</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

221 WINDING TECHNIQUE					
Semester	Course Code	Course Name	L+P	Credit	ECTS
3	221	WINDING TECHNIQUE	4	3,50	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

Electrical machines windings, winding types, the accounts of winding, winding principles, the different types of coil winding techniques to learn the most common failures, and repair of incurring a test i information that can skills and earn y i.

**Teaching Methods and Techniques:**

Direct current machines, transformers, alternating current machines, the armature and stator learning processes necessary for the calculation of winding winding chart drawing.

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Atelye-2 Abdullah Görkem
<b>Resources</b>	:	
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	10	<b>Education</b>	:	
<b>Engineering</b>	:	25	<b>Science</b>	:	
<b>Engineering Design</b>	:	25	<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	40

**Course Content**

Week	Topics	Study Materials	Materials
1	Winding have sufficient knowledge on testing and fault detection		lecture notes
2	Determination of the poles of the magnet and the pole electromagnet coils		lecture notes
3	Introduction of electric machine winding tools and equipment used in the measurement and control instruments...		Lecture notes and laboratory equipment
4	DA armature winding drawing techniques		Lecture notes
5	DA endüvisinde simple parallel winding		Lecture notes
6	DA endüvisinde multiple parallel winding		Lecture notes
7	DA endüvisinde simple series winding		Lecture notes
8	DA endüvisinde multiple series winding		Lecture notes
9	Midterm Exam		
10	Alternating current (AC) winding machine		Lecture notes
11	The stator winding of the hand-held		Lecture notes and practice
12	The stator winding of a half-mold		Lecture notes and practice
13	The stator winding of full-mold		Lecture notes and practice
14	Winding diagrams, drawings, sample problems related to		Lecture notes

**Course Learning Outcomes**

No	Learning Outcomes
C01	Grasp of the technical and types of electrical machines winding
C02	Be able to calculate the basic winding
C03	DC and AC machines to prevent winding applications
C04	Winding diagrams draw, read, Winding diagrams draw, read,
C05	Winding have sufficient knowledge on testing and fault detection.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	1	%25
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%125</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	4	56
Hours for off-the-c.r.stud	6	3	18
Assignments	6	3	18
Presentation	0	0	0
Mid-terms	2	8	16
Practice	0	0	0
Laboratory	0	0	0
Project	3	2	6
Final examination	1	6	6
<b>Total Work Load</b>			<b>120</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant






# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

205 DIGITAL ELECTRONIC					
Semester	Course Code	Course Name	L+P	Credit	ECTS
3	205	DIGITAL ELECTRONIC	3	2,50	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

In this course, the basic logic circuits, logic circuits and arithmetic-logic circuits to establish compound aimed to gain knowledge and skills.

**Teaching Methods and Techniques:**

Number Systems Logic Gate Circuits Integrated circuit families and specifications Logic circuit drawing functions Have drawn the circuit logic function Conversions between electrical circuits and logic circuits Boolean Algebra Karnaugh Map Remove and simplify the logic function of a problem. Create a time diagram of the problem. Install and run the logic circuit of a problem.

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Lecture, Question and answer, homework
<b>Resources</b>	:	Digital Design, M.Morris Mano,Digital Electronics, William Kleitz,Dijital Elektronik ve Kumanda Tekniği, O.Yorgancı,H.Yentür,A.Aşık
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	10	<b>Education</b>	:	
<b>Engineering</b>	:	10	<b>Science</b>	:	
<b>Engineering Design</b>	:	30	<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	50

**Course Content**

Week	Topics	Study Materials	Materials
1	Number Systems		
2	Logic Gate Circuits		
3	Integrated circuit families and specifications		
4	Logic functions and circuit drawing		
5	Conversions between electrical circuits and logic circuits		
6	Boolean mathematics		
7	Boolean mathematics		
8	Karnaugh Map		
9	Midterm Exam and Course Repetition		
10	Midterm Exam and Course Repetition		
11	Karnaugh Map		
12	Remove and simplify the logic function of a problem		
13	Create a time diagram of a problem		
14	Install and run the logic circuit of a problem.		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Knows the number systems and convert each other.
C02	Knows the logical gate circuits and circuits make the installation.
C03	Simplify the design using Boolean mathematics.
C04	Simplify the design using Karnaugh map
C05	Remove and simplify the logic function of a problem.
C06	Students set up and run a logic circuit problem.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	12	2	24
Assignments	2	3	6
Presentation	0	0	0
Mid-terms	1	9	9
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	9	9
<b>Total Work Load</b>			<b>90</b>
<b>ECTS Credit of the Course</b>			<b>3</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

211 SYSTEM ANALYSIS AND DESIGN					
Semester	Course Code	Course Name	L+P	Credit	ECTS
3	211	SYSTEM ANALYSIS AND DESIGN	2	1,50	2

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

In this course, implementation project design, implementation, and is intended to provide knowledge and skills.

**Teaching Methods and Techniques:**

Select the subject of study Present information Obtained System / Product Functions and Variables Defining Select the required materials Present information Obtained System / Product Specification or prepare Flow Chart System / Product Program or to make the calculations System / Product Program or to make the calculations System / media to install the product in operation System / product to set up System / product to set up System / Product Testing System / Product Testing System / product output the report to present

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

Textbook	:
Resources	:
Documents	:
Assignments	:
Exams	:

**Course Category**

Mathematics and Basic Sciences	: 10	Education	: 5
Engineering	: 15	Science	: 20
Engineering Design	: 15	Health	: 5
Social Sciences	: 10	Field	: 20

**Course Content**

Week	Topics	Study Materials	Materials
1	Determination of the subject's scope		
2	Preparing outline		
3	Feasibility study		
4	Feasibility study		
5	Application of the project		
6	Application of the project		
7	Application of the project		
8	Mid term exam		
9	mid term exam		
10	Application of the project		
11	To finish the project		
12	The reporting the project		
13	The reporting the project		
14	The presentation of project		

**Course Learning Outcomes**

No	Learning Outcomes
C01	To be able to determine the project subject and literature study
C02	To be able to feasibility studies
C03	To be able to determine the process steps in order to realize the project
C04	To complete the project
C05	To prepare the presentation of project

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	0	0	0
Assignments	0	0	0
Presentation	2	10	20
Mid-terms	1	2	2
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	10	10
<b>Total Work Load</b>			<b>60</b>
<b>ECTS Credit of the Course</b>			<b>2</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

237 COOLING TECHNIQUE					
Semester	Course Code	Course Name	L+P	Credit	ECTS
3	237	COOLING TECHNIQUE	2	1,50	2

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seçmeli

**Goals:**

In this course, it is aimed to gain knowledge and skills on troubleshoot failures of household type refrigerators cooling system.

**Teaching Methods and Techniques:****Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

Textbook	:
Resources	:
Documents	:
Assignments	:
Exams	:

**Course Category**

Mathematics and Basic Sciences	: 20	Education	:
Engineering	: 10	Science	:
Engineering Design	: 10	Health	:
Social Sciences	:	Field	: 60

**Course Content**

Week	Topics	Study Materials	Materials
1	compressor		
2	compressor		
3	condenser		
4	condenser		
5	Dryer		
6	The capillary tube		
7	Repeating courses and midterm exam		
8	Repeating courses and midterm exam		
9	Evaporator		
10	Clean the exhaust gas recirculation system		
11	Clean the exhaust gas recirculation system		
12	Gas charge / discharge		
13	Gas charge / discharge		
14	Gas charge / discharge		

**Course Learning Outcomes****No Learning Outcomes**

C01	Change the cooling system components.
C02	Gas exchange.

**Program Learning Outcomes****No Learning Outcome**

P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	3	%20
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%120</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	10	2	20
Assignments	3	3	9
Presentation	0	0	0
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>59</b>
<b>ECTS Credit of the Course</b>			<b>2</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

234 RESEARCH METHODS AND TECHNIQUES					
Semester	Course Code	Course Name	L+P	Credit	ECTS
4	234	RESEARCH METHODS AND TECHNIQUES	2	2	3

### Language of Instruction:

Turkish

### Course Level:

Associate

### Work Placement(s):

No

### Department / Program:

ELECTRICITY

### Course Type:

Zorunlu

### Goals:

In this course, implementation project design, implementation, and is intended to provide knowledge and skills.

### Teaching Methods and Techniques:

Select the subject of study Present information Obtained System / Product Functions and Variables Defining Select the required materials Present information Obtained System / Product Specification or prepare Flow Chart System / Product Program or to make the calculations System / Product Program or to make the calculations System / media to install the product in operation System / product to set up System / product to set up System / Product Testing System / Product Testing System / product output the report to present

### Prerequisites:

### Course Coordinator:

### Instructors:

Instructor Abdil KARAKAN

### Assistants:

### Recommended Sources

Textbook	:
Resources	:
Documents	:
Assignments	:
Exams	:

### Course Category

Mathematics and Basic Sciences	: 10	Education	: 5
Engineering	: 15	Science	: 20
Engineering Design	: 15	Health	: 5
Social Sciences	: 10	Field	: 20

### Course Content

Week	Topics	Study Materials	Materials
1	Determination of the subject's scope		
2	Preparing outline		
3	Feasibility study		
4	Feasibility study		
5	Application of the project		
6	Application of the project		
7	Application of the project		
8	Mid term exam		
9	mid term exam		
10	Application of the project		
11	To finish the project		
12	The reporting the project		
13	The reporting the project		
14	The presentation of project		

### Course Learning Outcomes

No	Learning Outcomes
C01	To be able to determine the project subject and literature study
C02	To be able to feasibility studies
C03	To be able to determine the process steps in order to realize the project
C04	To complete the project
C05	To prepare the presentation of project

### Program Learning Outcomes

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	0	0	0
Assignments	0	0	0
Presentation	2	10	20
Mid-terms	1	2	2
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	10	10
<b>Total Work Load</b>			<b>60</b>
<b>ECTS Credit of the Course</b>			<b>2</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant






# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

240 COMPUTER-AIDED PROJECT II					
Semester	Course Code	Course Name	L+P	Credit	ECTS
4	240	COMPUTER-AIDED PROJECT II	3	2,50	3

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

Make modelling of developed surface and solid modelling by AutoCAD. Produce and use symbol library by AutoCAD. Use electrical project preparation data in AutoCAD drawings.

**Teaching Methods and Techniques:**

Drawing of given perspective as solid model. Build and use symbol library in electrical projects. Drawing of lighting and power projects onto architecture plans. Voltage calculations of lighting and power projects, load tables. Compensation calculations in power Project, single line schemas of weak current, lighting and power projects.

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Electrical Installation Projects (Ü. Yılmaz-H.Durmuş)
<b>Resources</b>	:	
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	20	<b>Education</b>	:	
<b>Engineering</b>	:	10	<b>Science</b>	:	
<b>Engineering Design</b>	:	10	<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	60

**Course Content**

Week	Topics	Study Materials	Materials
1	WCS ve UCS notions meaning of symbols, 3D drawing settings , 3D navigaton with Elev and Thickness .		
2	Primitive ve derivative surface constructions.		
3	Modeling tool and commands.		
4	Drawing of given perspective as solid model.		
5	Dimensioning of solid models, explanation of two homework.		
6	Customize short paths, produce line types and multiple lines and their organization.		
7	Midterm exam.		
8	Midterm exam.		
9	Preperation of lighting and power Project records( cover, symbols, specifications, overview plans, dimensioning)		
10	Drawing of lighting and power projects onto architecture plans.		
11	Drawing of lighting and power projects onto architecture plans.		
12	Voltage drop calculations of lighting and power projects, load tables.		
13	Compansation calculations in power Project, single line schemas of weak current, lighting and power projects.		
14	Drawing extra diagrams, plotting, folding and filng projects.		
15	Lab appication exam and assesment of experiment reports.		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Make modelling of developed surface by AutoCAD.
C02	Make solid modelling by AutoCAD.
C03	Compare solid and surface modelling.
C04	Customize to AutoCAD program.
C05	Produce and use symbol library by AutoCAD.
C06	Use AutoCAD commands in vocational projects.
C07	Use electrical project preparation data in AutoCAD drawings.
C08	Define and use data transfer between Office and AutoCAD programs.
C09	Follow innovations and use project outputs as technical communication tool.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	5	%50
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%150</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	14	1	14
Assignments	5	5	25
Presentation	0	0	0
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>83</b>
<b>ECTS Credit of the Course</b>			<b>3</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

250 ENTREPRENEURSHIP I					
Semester	Course Code	Course Name	L+P	Credit	ECTS
4	250	ENTREPRENEURSHIP I	2	1,50	3

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seğmeli

**Goals:**

Entrepreneurship courses, initiatives, issues related to the concepts of entrepreneurial learning, entrepreneurship explain the key concepts and theoretical framework aims at establishing a bridge between applications in daily life. The assumption, of course, each student taking this course can build your own business is not successful. Our goal is the active participation of students and frequently encountered examples of entrepreneurial success and failure in a healthy way to analyze more

**Teaching Methods and Techniques:**

In this course, the entrepreneur characteristics, sex factor, entrepreneurship, entrepreneurial culture and entrepreneurial types examined.

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Mahmut Tekin Girişimcilik AÖF Yayınları, Girişimcilik, Michael Gerber Girişimcilik Tutkusu
<b>Resources</b>	:	
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:		<b>Education</b>	:	10
<b>Engineering</b>	:		<b>Science</b>	:	10
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:	30	<b>Field</b>	:	50

**Course Content**

Week	Topics	Study Materials	Materials
1	Encouraging entrepreneurship in Turkey		
2	Encouraging entrepreneurship in Turkey		
3	Stories of successful entrepreneurship		
4	Stories of successful entrepreneurship		
5	Entrepreneurship and Leadership		
6	Entrepreneurship and Leadership		
7	Franchising		
8	Franchising		
9	Mid-term exam		
10	Local entrepreneurship		
11	Local entrepreneurship		
12	Entrepreneurship in Turkey		
13	Entrepreneurship in Turkey		
14	Overall rating		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Understand Who They are and Who the Entrepreneurship is not
C02	Explains the basic concepts of the subject entrepreneurship
C03	Draws a frame of real-life examples of entrepreneurship
C04	Becomes aware of the different aspects and dimensions of the issue of entrepreneurship
C05	Becomes aware of the different aspects and dimensions of the issue of entrepreneurship

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	2	4	8
Assignments	1	8	8
Presentation	0	0	0
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>46</b>
<b>ECTS Credit of the Course</b>			<b>2</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

242 POWER ELECTRONICS II					
Semester	Course Code	Course Name	L+P	Credit	ECTS
4	242	POWER ELECTRONICS II	2	2	3

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seçmeli

**Goals:**

In this course, the inverter and the frequency converter circuit is aimed to establish knowledge and skills.

**Teaching Methods and Techniques:**

Voltage Feed Inverters Current Feed Inverters Direct Frequency Converters DC Search Circuit Frequency Converters

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	Lecture, Question and answer, homework
<b>Resources</b>	:	Güç Elektroniği Meslekiçi Eğitim Semineri, TMMOB yayını,U. Arifoglu, Güç Elektroniği ,ITU, ,Harun Bayram, Elektronik, Zafer Matbaası
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	20	<b>Education</b>	:	
<b>Engineering</b>	:	20	<b>Science</b>	:	10
<b>Engineering Design</b>	:	20	<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	30

**Course Content**

Week	Topics	Study Materials	Materials
1	Voltage-fed inverters		
2	Voltage-fed inverters		
3	Voltage-fed inverters		
4	The current-fed inverters		
5	The current-fed inverters		
6	The current-fed inverters		
7	Direct frequency converters		
8	Direct frequency converters		
9	Midterm Exam and Course Repetition		
10	Midterm Exam and Course Repetition		
11	Direct frequency converters		
12	DC intermediate circuit, frequency converters		
13	DC intermediate circuit, frequency converters		
14	DC intermediate circuit, frequency converters		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Comprehend operational characteristics of inverter circuits
C02	Comprehend functions of inverter circuits
C03	Students understand the operation of the voltage-fed Inverters
C04	Students understand the operation of the current-fed Inverters
C05	Students understand the characteristics and Understand the operation of the direct frequency converter.
C06	Comprehend operational characteristics and functions of frequency converter circuits

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	12	2	24
Assignments	3	2	6
Presentation	0	0	0
Mid-terms	1	9	9
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	9	9
<b>Total Work Load</b>			<b>90</b>
<b>ECTS Credit of the Course</b>			<b>3</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

224 HYDRAULICS PNEUMATICS					
Semester	Course Code	Course Name	L+P	Credit	ECTS
4	224	HYDRAULICS PNEUMATICS	4	4	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

Comprehend basic concepts of fluid mechanics, hydrostatics and hydrodynamics. Comprehend operational principles of hydraulic and pneumatic control systems, and set up these control circuits. Set up a hydraulic circuit due to the desired criteria.

**Teaching Methods and Techniques:**

Basic principles of hydraulics, Hydraulic elements (components) and circuits, Basic principles of Pneumatic, Pneumatic elements (components) and circuits

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

**Textbook** :  
**Resources** :  
**Documents** :  
**Assignments** :  
**Exams** :

**Course Category**

<b>Mathematics and Basic Sciences</b> : 20	<b>Education</b> :
<b>Engineering</b> : 20	<b>Science</b> :
<b>Engineering Design</b> : 20	<b>Health</b> :
<b>Social Sciences</b> :	<b>Field</b> : 40

**Course Content**

Week	Topics	Study Materials	Materials
1	Introduction to the class, definitions and general information about class,		
2	Basic principles and system elements of hydraulics		
3	Hydraulic tanks, fluids and filters		
4	Hydraulic pumps and motors		
5	Direction control valves and its basic features.Pressure and flow control valves		
6	Hydraulic cylinders and drawing hydraulic circuits		
7	Midterm exam and repetition of the subject		
8	Midterm exam and repetition of the subject		
9	Comparisons of hydraulics and pneumatics, basic principles of pneumatic		
10	Pneumatic system elements and compressors		
11	Air tanks, and its connections		
12	Dryers, air filters, and conditioners		
13	Pneumatic valves and drawing pneumatic circuits		
14	Pneumatic cylinders and vacuum elements		

**Course Learning Outcomes**

No	Learning Outcomes
C01	To comprehend basic principles of hydraulics and pneumatic
C02	To comprehend basic elements and characteristics of hydraulics and pneumatic
C03	To comprehend working principles of hydraulics and pneumatic
C04	To identify elements in drawn circuits and interpretation of running circuits
C05	To be able to select elements for a new designed circuit and construct circuit
C06	To comprehend basic principles of hydraulics and pneumatic
C07	To comprehend basic elements and characteristics of hydraulics and pneumatic
C08	To comprehend working principles of hydraulics and pneumatic
C09	To identify elements in drawn circuits and interpretation of running circuits
C10	To be able to select elements for a new designed circuit and construct circuit

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	5	%20
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%120</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	4	56
Hours for off-the-c.r.stud	10	3	30
Assignments	5	3	15
Presentation	0	0	0
Mid-terms	1	2	2
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	2	2
<b>Total Work Load</b>			<b>105</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant






# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

236 SPECIAL DESIGNED MACHINES					
Semester	Course Code	Course Name	L+P	Credit	ECTS
4	236	SPECIAL DESIGNED MACHINES	3	2,50	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

All kinds of tips have custom-designed engines, commissioning and operation of connected transactions aimed to gain qualifications.

**Teaching Methods and Techniques:**

The structure and operation of stepper motors, servo motors, the structure and operation, structure and operation of single-phase auxiliary winding motors, universal motors and operation of the structure, the structure and operation of linear motors, shade pole motors and operation of the structure.

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:
<b>Resources</b>	:
<b>Documents</b>	:
<b>Assignments</b>	:
<b>Exams</b>	:

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	<b>Education</b>	:
<b>Engineering</b>	:	<b>Science</b>	:
<b>Engineering Design</b>	:	<b>Health</b>	:
<b>Social Sciences</b>	:	<b>Field</b>	:

**Course Content**

Week	Topics	Study Materials	Materials
1	Stepper motors structure and ways of working.		
2	Stepper motors terms are encountered		
3	Types of Stepper Motors and road-making methods.		
4	Important parameters of step motors.		
5	Stepper Motors excitation.		
6	Servo Motors structure and ways of working.		
7	Types of servo motors and starting methods.		
8	Types of single-phase induction motor.		
9	Mid-term exam		
10	A-phase auxiliary winding motors structure, working principle, speed adjustment, change the direction of the transfer and t		
11	Linear motors structure and ways of working.		
12	Types of linear motors and road-making methods.		
13	Shade pole motors structure and ways of working.		
14	Shade pole motors types and methods of giving way.		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Stepper Motors to set up and run.
C02	Servo Motors to set up and run.
C03	Help you to set up and run single-phase motor windings.
C04	Universal Motors to set up and run.
C05	Linear motors and run make install.
C06	Shade pole motors to set up and run.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle. Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P13	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	6	4	24
Assignments	2	4	8
Presentation	0	0	0
Mid-terms	1	4	4
Practice	0	0	0
Laboratory	0	0	0
Project	2	4	8
Final examination	1	10	10
<b>Total Work Load</b>			<b>96</b>
<b>ECTS Credit of the Course</b>			<b>3</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

244 SPECIAL INSTALLATION					
Semester	Course Code	Course Name	L+P	Credit	ECTS
4	244	SPECIAL INSTALLATION	2	2	3

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seğmeli

**Goals:**

Know the regulations about electrical projects. Making Ground Installations Security Systems Installation Make. Lightning Rod Installations.

**Teaching Methods and Techniques:**

To make compensation Installations. Lightning Conductor Installations. Making Grounding Installations

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

Textbook	:
Resources	:
Documents	:
Assignments	:
Exams	:

**Course Category**

Mathematics and Basic Sciences	: 20	Education	:
Engineering	: 20	Science	: 10
Engineering Design	: 10	Health	:
Social Sciences	:	Field	: 40

**Course Content**

Week	Topics	Study Materials	Materials
1	1 the rules of technical drawing and isometric drawings of 3D objects		
2	Examination of electric internal installation regulations and important points.		
3	Examination of electric installation ground regulations.		
4	Examination of confirmed projects and drawing lighting projects.		
5	Fill the load tables of electrical projects.		
6	Make a list of materials by using load tables and cost calculation. Calculation of conductors and protection elements to be used		
7	Calculation of conductors and protection elements to be used		
8	Midterm exam		
9	Conductor and the protective elements according to load calculations and selection.Properties and rules of power projects.		
10	Power project to fill tables in the installation and consolidation of these tables.		
11	Calculation of conductors in the main column and the column lines to be used, protection components calculations.		
12	Importance of compensation and Calculation of the battery and protective elements in compensation		
13	Compensation for per phase in 3 phase systems, selection compensation batteries, relays and fuses.		
14	Lab application exam and assesment of the experimental implementation reports.		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Know the regulations about electrical projects.
C02	Making Ground Installations
C03	Lightning Rod Installations
C04	Lightning Rod Installations

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle. Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	14	3	42
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	1	1	1
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>86</b>
<b>ECTS Credit of the Course</b>			<b>3</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

238 AUDITORS PROGRAMMABLE					
Semester	Course Code	Course Name	L+P	Credit	ECTS
4	238	AUDITORS PROGRAMMABLE	4	3,50	4

### Language of Instruction:

Turkish

### Course Level:

Associate

### Work Placement(s):

No

### Department / Program:

ELECTRICITY

### Course Type:

Zorunlu

### Goals:

In parallel with the developments challenge of automation systems, programmable logic controllers (PLC) to learn the structure, understand the working principle, apply the principles of programming, industrial facilities, working principle and design ability to give appropriate solution.

### Teaching Methods and Techniques:

Programmable logic controllers (PLC) structure, working principle, programming methods, industrial applications, PLC family - and the selection of expansion modules ..

### Prerequisites:

### Course Coordinator:

### Instructors:

Instructor Abdil KARAKAN

### Assistants:

### Recommended Sources

<b>Textbook</b>	:	
<b>Resources</b>	:	Programmable Controllers theory and implementation L.A.Bryan-E.A.Bryan,Lecturer notes,Uygulamalı PLC programlama ve operatör panel konfigürü
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

### Course Category

<b>Mathematics and Basic Sciences</b>	: 15	<b>Education</b>	: 5
<b>Engineering</b>	: 25	<b>Science</b>	: 10
<b>Engineering Design</b>	: 25	<b>Health</b>	: 0
<b>Social Sciences</b>	: 0	<b>Field</b>	: 20

### Course Content

Week	Topics	Study Materials	Materials
1	PLC 's, its historical development, advantages, benefits, comparison with other control systems, PLC Family		
2	PLC 's structure, working principle, programming methods, input / output / expansion units		
3	Basic logic commands, number systems, reminder systems and overcome the lack of classical control		
4	PLC programming methods, ladder diagram, instruction list, function diagram		
5	Transformations between the realization of PLC programs, basic programming principles		
6	Classical (relay / contactor) control systems, PLC programs into		
7	Questions relating to methods of programming examples resolved		
8	Programmina, timers, and sample solutions		
9	The solution of problems related to the example of Timers / Mid-term exam		
10	Programming; counters and sample solutions		
11	Counters related to the sample solution of problems		
12	Programming commands and sample solutions in comparison		
13	The solution of problems related to the example of Comparators		
14	PLCs and expansion units - the choice TECHNIQUES		

### Course Learning Outcomes

No	Learning Outcomes
C01	PLC 's structure, operation and understand the programming logic
C02	PLC programming languages and commands allow to distinguish
C04	develop an application using PLC ladder diagram programming tekniđini
C05	Understands and applies the use of PLC counter learned in
C06	Understands and applies the use of PLC counter learned in
C07	Understands and applies the comparison function learned in PLC

### Program Learning Outcomes

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P13	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	4	56
Hours for off-the-c.r.stud	10	3	30
Assignments	0	0	0
Presentation	1	8	8
Mid-terms	1	12	12
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	14	14
<b>Total Work Load</b>			<b>120</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

248 SCADA SYSTEMS					
Semester	Course Code	Course Name	L+P	Credit	ECTS
4	248	SCADA SYSTEMS	2	2	3

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Seçmeli

**Goals:**

In this course, the SCADA system aimed to gain qualifications to establish and record-keeping procedures.

**Teaching Methods and Techniques:****Prerequisites:****Course Coordinator:**

Instructor Mehmet Süzme

**Instructors:****Assistants:****Recommended Sources**

Textbook	:
Resources	:
Documents	:
Assignments	:
Exams	:

**Course Category**

Mathematics and Basic Sciences	: 20	Education	:
Engineering	: 10	Science	: 10
Engineering Design	: 20	Health	:
Social Sciences	:	Field	: 40

**Course Content**

Week	Topics	Study Materials	Materials
1	Visual programming to SCADA application..		Lecture notes
2	SCADA Interface Design, Control Device Connection		Lecture notes
3	Control Device Connection Using OPC SERVER		Lecture notes
4	Using OPC SERVER		Lecture notes
5	TAG LOGGING do, do ALARM HANDLING		Lecture notes
6	ALARM HANDLING do, the data base record		Lecture notes
7	Registration Database, Visual Programming Interface		Lecture notes
8	Visual Programming Interface, Visual Programming Objects		Lecture notes
9	Mid-term exam		
10	Visual Programming Objects		Lecture notes
11	Visual Programming Objects, Visual Programming with the Computer		Lecture notes
12	Computer Ports with Visual Programming, Visual Programming Language with the Device Control		Lecture notes
13	Device Control with Visual Programming Language		Lecture notes
14	Visual Programming with the Data Watch and Registration		Lecture notes

**Course Learning Outcomes**

No	Learning Outcomes
C01	Scada program to practice with
C02	SCADA to design
C03	Visual programming
C04	Visual programming to SCADA application

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious.
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	2	28
Hours for off-the-c.r.stud	6	2	12
Assignments	3	3	9
Presentation	0	0	0
Mid-terms	1	5	5
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	8	8
<b>Total Work Load</b>			<b>62</b>
<b>ECTS Credit of the Course</b>			<b>2</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant






# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

210 AGREEMENT DISCOVERY AND PLANNING					
Semester	Course Code	Course Name	L+P	Credit	ECTS
4	210	AGREEMENT DISCOVERY AND PLANNING	3	2,50	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

In this course, the student's pre-project studies, planning, making reconnaissance, aimed to gain competencies in preparing the contract and specifications

**Teaching Methods and Techniques:**

1. Preliminary studies 2. planning 3. making the contract 4. specification preparation 5. tender files present

**Prerequisites:****Course Coordinator:****Instructors:**

Instructor Abdil KARAKAN

**Assistants:****Recommended Sources**

<b>Textbook</b>	:	The textbook, books and other resources to help
<b>Resources</b>	:	The textbook, books and other resources to help , Official institutions (TEAS, telecom) specifications
<b>Documents</b>	:	
<b>Assignments</b>	:	
<b>Exams</b>	:	

**Course Category**

<b>Mathematics and Basic Sciences</b>	:	10	<b>Education</b>	:	
<b>Engineering</b>	:	30	<b>Science</b>	:	20
<b>Engineering Design</b>	:		<b>Health</b>	:	
<b>Social Sciences</b>	:		<b>Field</b>	:	40

**Course Content**

Week	Topics	Study Materials	Materials
1	Building regulations, exploration and regulations.		
2	Specifications, the legislation of overhead line.		
3	Transmission line specifications / topographic information.		
4	The underground cable installation / regulations / specifications.		
5	Security systems/ facilities and hardware information		
6	Security system regulation / planning prior to installation.		
7	Exploration project summaries		
8	To prepare tender specifications.		
9	Preparing the tender documents.		
10	The tender dossier preparation / subscribe operations individual customers.		
11	Subscribe to private customers in the process / TUS contract		
12	Contract of the Contractor		
13	Contractor contract / methods and procedures for preparation of Record.		
14	The following documents are subject to the tender announcement procedures.		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Mathematics, science and related issues in their own areas have adequate infrastructure.
C02	Improved technologies and solutions to problems in the implementation of moments.
C03	Taking additional technical training in the field of technology and tools, up-to-date techniques
C04	Technical ability in practice uses active picture
C05	Presents data collected from experiments, collect data.
C06	Works as an individual or teams.
C07	Life-long learning is conscious.
C08	Uses of information technologies, technology with the most basic level at the European Computer User License along with computer software uses information and communication technologies.
C09	Have professional awareness about the ethics of the legal consequences of technological applications.

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	1	%40
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%60
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	14	3	42
Hours for off-the-c.r.stud	14	2	28
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	1	10	10
Practice	0	0	0
Laboratory	0	0	0
Project	2	10	20
Final examination	1	14	14
<b>Total Work Load</b>			<b>114</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant




# Afyon Kocatepe University

DAZKIRI VOCATIONAL SCHOOL  
ELECTRICITY

200 INTERNSHIP II					
Semester	Course Code	Course Name	L+P	Credit	ECTS
4	200	INTERNSHIP II	0	0	4

**Language of Instruction:**

Turkish

**Course Level:**

Associate

**Work Placement(s):**

No

**Department / Program:**

ELECTRICITY

**Course Type:**

Zorunlu

**Goals:**

It deems appropriate theoretical knowledge of subjects related to the student business application program

**Teaching Methods and Techniques:****Prerequisites:****Course Coordinator:**

Program Staj Komisyonu

**Instructors:****Assistants:****Recommended Sources**

Textbook	:
Resources	:
Documents	:
Assignments	:
Exams	:

**Course Category**

Mathematics and Basic Sciences	:	Education	:
Engineering	:	Science	:
Engineering Design	:	Health	:
Social Sciences	:	Field	: 100

**Course Content**

Week	Topics	Study Materials	Materials
1	Workplace Practice		
2	Workplace Practice		
3	Workplace Practice		
4	Workplace Practice		
5	Workplace Practice		
6	Workplace Practice		
7	Workplace Practice		
8	Workplace Practice		
9	Workplace Practice		
10	Workplace Practice		
11	Workplace Practice		
12	Workplace Practice		
13	Workplace Practice		
14	Workplace Practice		

**Course Learning Outcomes**

No	Learning Outcomes
C01	Implementation issues to make the lessons learned
C02	To adapt to work life
C03	Reinforcement theory and practice together
C04	Business processes related to his job application
C05	Working to ensure discipline
C06	Follow them from solutions to the problems in business processes
C07	Field of domain
C08	Use tools to suit the sectoral

**Program Learning Outcomes**

No	Learning Outcome
P09	Drawing with the electrical and electronic circuits design and simulation programs.
P08	Electrical systems can draw plans.
P07	Electrical machinery structure, working principle, Electrical machinery use.
P10	Maintenance, repair and installation of electrical devices and systems can
P13	Power electronic circuits can
P12	Electric power transmission and distribution networks set up
P11	Automated systems can control and PLC systems.
P02	Enough for analysis in the use of professional knowledge of mathematics.
P01	You can use the basic knowledge of foreign languages.
P14	Space-related issues, occupational safety, occupational health and environmental protection can be conscious
P03	Operating system, basic information about the use of office software and computer hardware overall
P06	Can direct and alternating current circuit solutions.
P05	I use analog and digital electrical measuring instruments.
P04	Low-voltage network and choose the elements.

Assessment		
In-Term Studies	Quantity	Percentage
Mid-terms	0	%0
Quizzes	0	%0
Assignment	0	%0
Attendance	0	%0
Practice	0	%0
Project	0	%0
Final examination	1	%100
<b>Total</b>		<b>%100</b>

ECTS Allocated Based on Student Workload			
Activities	Quantity	Duration	Total Work Load
Course Duration	15	8	120
Hours for off-the-c.r.stud	0	0	0
Assignments	0	0	0
Presentation	0	0	0
Mid-terms	0	0	0
Practice	0	0	0
Laboratory	0	0	0
Project	0	0	0
Final examination	1	1	1
<b>Total Work Load</b>			<b>121</b>
<b>ECTS Credit of the Course</b>			<b>4</b>

Course Contribution To Program
Contribution: 1: Very Slight 2:Slight 3:Moderate 4:Significant 5:Very Significant
