



**İstanbul Ticaret Üniversitesi**  
**Mühendislik Fakültesi**  
**Elektrik-Elektronik Mühendisliği İngilizce Lisans Programı**

Prepared by: Doç. Dr. Serhan YARKAN

Preparation Date: 10.03.2021 10:45:52

Course		Term	Theory	Application	Credit	ECTS
Name	Code					
	EEE202	2019-2020 Bahar	0	3	1,5	4

Course Duration	2020-02-10 - 2020-07-07
Course Language	İngilizce
Course Type	Zorunlu
Course Level	Lisans
Instructors	Doç. Dr. Serhan YARKAN Doç. Dr. Serhan YARKAN
Contact	Dahili: 3334 Oda: B-33 Birim: Elektrik-Elektronik Mühendisliği İngilizce Lisans Programı Görev: Öğretim Üyesi, syarkan@ticaret.edu.tr Dahili: 3334 Oda: B-33 Birim: Elektrik-Elektronik Mühendisliği İngilizce Lisans Programı Görev: Öğretim Üyesi, syarkan@ticaret.edu.tr
Objective of the Course	Learning basic circuits and machines used in Electrical and Electronic Engineering.
Course Learning Outcomes (CLO)	<ul style="list-style-type: none"> <li>• Knows the use of measuring instruments</li> <li>• Knows that the alternating current circuits</li> <li>• Knows that a direct current motor</li> <li>• Design and implement a simple electrical circuits</li> <li>• Apply basic circuit theory</li> <li>• Calculates the parameters of the basic circuits</li> </ul>
Teaching Methods	Face to face
Course Content (Brief)	Experiments. DC motors. The amperemeter. AC circuits. Resonant circuits. The transformer. Transient and Steady State Response. The inductor with an iron core. Thevenin and Norton laws. Kirchoff's Current and voltage laws. Maximum Power Transfer Theorems. Deflection of electrons in statical and magnetic fields.
Prerequisite(s) / Co-requisites(s)	

**Weekly Course Outline**

<b>Week 1</b>	Preparation for experiments
<b>Week 2</b>	Preparation for experiments
<b>Week 3</b>	Preparation for experiments
<b>Week 4</b>	DC motors

<b>Week 5</b>	The ampermeter
<b>Week 6</b>	AC circuits
<b>Week 7</b>	Resonant circuits
<b>Week 8</b>	The transformer
<b>Week 9</b>	Transient and Steady State Response
<b>Week 10</b>	The inductor with iron core
<b>Week 11</b>	Thevenin and Norton laws
<b>Week 12</b>	Kirchoff's Current and voltage laws
<b>Week 13</b>	Maximum Power Transfer Theorems
<b>Week 14</b>	Deflection of electrons in statical and magnetic fields

<b>Resources</b>	<b>Textbook</b>	A lab manual, provided by the university.
	<b>Recommended Books</b>	Electrotechnics, John Henderson
<b>Teaching Equipment</b>		Computer and presentation projector

### Evaluation System

Activiesduring the term	<b>Studiess</b>	<b>Number</b>	<b>Contribution</b>
	Homework	0	0
	Presentation	0	0
	Mid Term Exams	0	0
	Project	0	0
	Laboratory	14	60
	Field Study	0	0
	Quiz	0	0
	Term Project	0	0
	Portfolio	0	0
	Reports	0	0
	Learning Diaries	0	0
	Graduate Project	0	0
	Seminar	0	0
	Others	0	0
	<b>Sub Total</b>	14	60
	<b>During Term Studies Contribution</b>		60
	<b>Final Exam Contribution (&gt;40%)</b>		40
	<b>Total</b>		100

### Course and Program Learning Outcomes Relationship

Number	Program Learning Outcomes (PLO)	Course Learning Outcomes (CLO)					
		CLO1	CLO2	CLO3	CLO4	CLO5	CLO6
PLO1	Basic sciences and Electrical - Electronic Engineering in the field of theoretical and practical knowledge sufficient level wins.	5	5	5	5	5	5
PLO2	Theoretical and practical knowledge gained in the	5	5	5	5	5	5

	field of Electrical and Electronics Engineering uses.						
PLO3	Experiments in the field of Electrical and Electronics Engineering designs, executes, analyzes the data and interpretations.	5	5	5	5	5	5
PLO4	For the problems it encounters in the field of Electrical and Electronics Engineering Selects and applies appropriate analytical methods and modeling techniques.	5	5	5	5	5	5
PLO5	A system that is believed to be necessary in the field of Electrical and Electronics Engineering, design components or processes.	5	5	5	5	5	5
PLO6	Makes an individual or team work within the discipline and interdisciplinary.	0	0	0	0	0	0
PLO7	Makes access to information and research resource for this purpose, use databases and other information resources.	3	3	3	3	3	3
PLO8	Lifelong learning is a conscious aware of this requirement.	1	1	1	1	1	1
PLO9	Required by the technological innovations of Electrical and Electronics Engineering will follow, predicts that innovations in technology that will be needed, and provides the necessary contributions.	1	1	1	1	1	1
PLO10	At least one foreign language oral and written communication skills, wins the best use of this language.	1	1	1	1	1	1
PLO11	Professional and scientific achievements of learned knowledge and skills in professional communication have much to transfer them to others.	1	1	1	1	1	1
PLO12	Innovative studies in the field of Electrical and Electronics Engineering, field applications, business and human safety, environmental sensitivity issues have the highest awareness and consciousness.	1	1	1	1	1	1

ECTS- Work Load Table

Activities	Week	Time (hour)	Total Work Load
Course Duration	0	0	0
Out of Classroom Studies Duration	13	2	26
Homework	13	1	13
Presentation	0	0	0
Mid Term Exam	0	0	0
Project	0	0	0
Laboratory	13	3	39
Field Study	0	0	0
Final Exam	1	15	15
Quiz	0	0	0
Term Project	0	0	0
Portfolio Study	0	0	0
Report	0	0	0

Learning Diaries	0	0	0
Graduation Project	0	0	0
Seminar	0	0	0
Other	0	0	0
<b>Total Work Load</b>			
<b>Total Work Load / 25</b>			
<b>Course ECTS</b>			4

<b>Contribution of the Course to the Field / Vocational Education</b>
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<b>Approval</b>	<b>Head of The Department</b>	