

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
CIRCUITS II	EEE2220970	Spring Semester	3+2	4	8
<b>Prerequisites Courses</b>	ELEKTRİK DEVRELERİ I				
<b>Recommended Elective Courses</b>					
<b>Language of Instruction</b>	English				
<b>Course Level</b>	First Cycle (Bachelor's Degree)				
<b>Course Type</b>	Required				
<b>Course Coordinator</b>	Assoc.Prof. Muhammed Fatih TOY				
<b>Name of Lecturer(s)</b>	Assoc.Prof. Muhammed Fatih TOY				
<b>Assistant(s)</b>					
<b>Aim</b>	Analysis methods for dynamic circuits, Sinusoidal steady-state analysis, frequency domain analysis				
<b>Course Content</b>	This course contains; Second Order Circuits, Sinusoids and Phasors, Sinusoidal Steady State Analysis - 1, Sinusoidal Steady State Analysis - 2, AC Power Analysis, Three Phase Circuits, Magnetically Coupled Circuits, Frequency Response - 1, Frequency Response - 2, Frequency Response - 3, Introduction to Laplace Transform, Applications of the Laplace Transform - 1, Applications of the Laplace Transform - 2, Two Port Networks.				
<b>Course Learning Outcomes</b>			<b>Teaching Methods</b>	<b>Assessment Methods</b>	
1. Can analyze the steady state behavior of AC circuits and three phase circuits			12, 16, 17, 6, 9	A, E	
2. Can design and analyze both passive and active filtering circuits.			12, 16, 17, 6, 9	A, E, F	
3. Can analyze circuits with Laplace transform			12, 16, 9	A, E	
4. Can analyze the frequency response of AC circuits.			12, 16, 17, 6, 9	A, E	
5. Improve skills on utilizing modern electrical engineering equipment and simulating electric circuits, develop applications on real life problems			14, 16, 17, 2, 6, 9	E, F	
<b>Teaching Methods</b>	12: Problem Solving Method, 14: Self Study Method, 16: Question - Answer Technique, 17: Experimental Technique, 2: Project Based Learning Model, 6: Experiential Learning, 9: Lecture Method				
<b>Assessment Methods</b>	A: Traditional Written Exam, E: Homework, F: Project Task				
<b>Lecture Schedule</b>					
Sequence	Topics	Preliminary Preparation			
1	Second Order Circuits				
2	Sinusoids and Phasors				
3	Sinusoidal Steady State Analysis - 1				
4	Sinusoidal Steady State Analysis - 2				
5	AC Power Analysis				
6	Three Phase Circuits				
7	Magnetically Coupled Circuits				
8	Frequency Response - 1				
9	Frequency Response - 2				
10	Frequency Response - 3				
11	Introduction to Laplace Transform				
12	Applications of the Laplace Transform - 1				
13	Applications of the Laplace Transform - 2				
14	Two Port Networks				
<b>Evaluation Methods</b>		<b>Weight(%)</b>			
Midterm Exam		30			
General Exam		70			
<b>Resources</b>					
Fundamentals of Electric Circuits, by C. K. Alexander and M. N. O. Sadiku, 5th edition					