Course Code	TKEE162107
Course Name	Electrical Circuits
Course Instructors	Priyatmadi, Harry Prabowo, Eka Firmansyah
Course Type	Required
Course Classification	Engineering Topics
Credit / Contact Hour per Week	3 / 150 minutes per Week
Course Description	The subject material of the Electric Circuits is divided into three major sections. The first section contains DC series consisting of: Basic Concepts, Some Basic Laws, Analysis Methods, Circuit Theorems, Operational Amplifiers, Capacitors and Inductor, First Order Circuits, Second Order Circuits. Part Two contains an AC Circuit consisting of: Sinusoid and Phasor, Steady State Sinusoidal Analysis, AC Power Analysis, Three-Phase Circuits, Magnetically Coupled Circuits, Frequency Response. Part Three contains Advanced Analysis of the Circuit consisting of: Laplace Transform, Fourier Transformation and Transformation, and Two Port Networks.
Prerequisites Courses	
Covered Student Outcome	**Fundamental and Engineering Knowledge (a)**

Learning Outcome	1. Students are able to describe the mathematical modal of circuit electrical and define the relationship among electrical quantities. 2. Students are able to solve problems of electrical circuit using standard conventional method and computerized method. 3. Students are able to solve common practical problems in home and industry.
Topic	1. DC circuit 2. AC circuit 3. Further Analysis of the Circuit
Direct Asessment	
Indirect Assesment	Questionnaire (EDOM)
References	[1] Fundamentals Of Electric Circuits, Charles K. Alexander, dan Matthew N.O. Sadiku, Fourth Edition, McGraw Hill, 2009 [2] Electrical Networks, Tata McGraw Hill, G.K. Mithal, 1989

Direct Asessment Plan	**Measured Learning Outcome**
Assignments	LO1, LO2, LO3
Mid Exam	LO1, LO2
Final Exam	LO,3