



# STARK STATE COLLEGE

## GENERAL SYLLABUS

### Course Information

**Course Name:** Electrical Circuits and Devices  
**Course Number:** EST230

### Required Materials

**Textbook(s):** Electricity for the Trades; ISBN: 978-1-260-43745-4 Third edition  
**Required Readings:** None  
**Additional Materials:** Scientific calculator

### Course Outline/Calendar

The date of coverage and order of coverage may be modified based on the faculty member and events beyond the control of faculty members that interfere with class times and teaching.

Week	Chapter/Topic/Lab
1	Quiz 1 Fundamentals of Electricity and Meters Electrical Equations Assignment Ohm's Law, Power Formula and SI Conversions
2	Quiz 2: Resistor Color Coding, Series Circuits & Power, and KVL, VDR Electrical Equations Assignment - Series Circuit Voltage/Current/Power and Series Circuit Resistance. Ohm's Law/Series Circuits Lab
3	Quiz 3: Parallel Circuit Resistance Electrical Equations Assignment - Parallel Circuit - Resistance, Voltage/Current/Power Kirchhoff's laws KVL and KCL Lab
4	Quiz 4: Series/Parallel Circuits Electrical Equations Assignment Series/Parallel Circuit - Resistance and Voltage/Current/Power Parallel Circuit Virtual Lab
5	Quiz 5: Capacitors Electrical Equations Assignment - Capacitors Static & Transient States and RC Circuits DC Capacitor Virtual Lab
6	Exam 1
7	Quiz 6: AC Circuits & AC Capacitance Assignment Relays, Contactors, Starters, Magnetics and Solenoids Electromagnetic Induction Lab
8	Quiz 7: Electrical Symbols Semi-Conductor Virtual Lab
9	Quiz 8: Transducers & Load Cells

<b>Week</b>	<b>Chapter/Topic/Lab</b>
	Assignment Diodes & Transistors - Analog/Digital Signals
10	Quiz 9: Timers, Counters and Print Reading Ladder Logic Assignment Batteries and Resistors Lab
11	Exam 2
12	Quiz 10: Transformers Transformer Assignment Transformer - Generator Lab
13	Quiz 11: Distribution and Three Phase Power Three Phase Power Assignment
14	Quiz 12: Electrical Overview
15	Quiz 13 – Conductors Conductors Assignment Ohm's Law and Resistance in Conductors Lab
16	Exam 3