

# Course-to-Course Articulation Form

**College** \_\_\_\_\_ **Mission** \_\_\_\_\_ **High School/ROCP** \_\_\_\_\_  
**Course** \_\_\_\_\_ **CET-52** \_\_\_\_\_ **Course** \_\_\_\_\_  
**Program** \_\_\_\_\_ **CET** \_\_\_\_\_ **Program** \_\_\_\_\_  
**Units** \_\_\_\_\_ **4** \_\_\_\_\_ **Hours** \_\_\_\_\_

## Attach Official Course Outline

H.S./ROCP Course Description \_\_\_\_\_

H.S./ROCP Prerequisite to the Course \_\_\_\_\_

Upon completion of this course, the student will be able to:

College Course Objectives	High School and ROCP Course Objectives
Accurate voltage, current, and resistance measurements using standard VOM and DVM meters	
Design and analyze series-parallel resistor circuits using fundamental theorems such as Ohm's, Thevinin's, Superposition, and Kirchoff's.	
Troubleshoot a variety of DC circuits.	
Calculate energy and power in a DC circuit.	
Explain the DC characteristics of diodes and capacitors.	

<b>Course Content</b>	<b>High School and ROCP Course Content</b>
Electric charge and current	
Voltage, current, and resistance	
Ohm's law	
Energy and power	
Series circuits	
Parallel Circuits	
Series-Parallel circuits	
Circuit theorems (Thevenin's, Superposition, Norton).	
Branch, mesh, and node analysis	
Troubleshooting	
Voltage and current sources	
Electronics math, including determinants.	

<b>Critical Thinking Objectives (Examples)</b>	<b>High School &amp; ROCP Critical Thinking Objectives (Examples)</b>
Analyze circuit power to determine if a 1/4watt resistor is safe.	
Analyze a series-parallel circuit to determine if the current draw exceeds the power supply limit.	
Determine the output impedance of a DC power supply by loading measurements.	
Contrast and compare the characteristics of voltage and current sources.	

Credit for the course listed will be granted if the following criteria are met:

Stipulated grade of C or better

Examination—list additional comments below

Portfolio

Certification of specific competencies

Other

**Additional Criteria Comments** Hours of instruction equivalent to a 3-unit

(4 hrs/week) semester length class (96 or more hrs of instruction.)

\_\_\_\_\_  
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\_\_\_\_\_  
Faculty/Department Chair/College      Date

\_\_\_\_\_  
Faculty/Department Chair/HS/ROCP      Date

\_\_\_\_\_  
Division Chair      Date

\_\_\_\_\_  
High School/ROCP Principal/Designee      Date

\_\_\_\_\_  
Dean of Instruction/Designee      Date

\_\_\_\_\_  
Assistant Superintendent of  
Instruction/Designee      Date