

OET001 – DC CIRCUITS

Credit Hours: 3 Semester Hours
Corequisite or Prerequisite: College Algebra (TMM001) or equivalent
Related TAGs: Electrical Engineering Technology, Solar Energy, Wind Energy
General Course Description: A detailed study of direct current electric circuits and related bilateral devices. This course covers DC fundamentals, the systems that use them, and the basic sources of DC electricity. Conventional and computer circuit analysis will be used. Includes hands-on labs.
Student Learning Outcomes marked with an asterisk (*) are essential and must be met.
Students will be able to:
1. Demonstrate an understanding of and application for electrical components and quantities.*
2. Define voltage, current, electrical resistance, and power.*
3. Utilize Ohm's law and Kirchhoff's Laws to analyze circuits.*
4. Determine resistance, current, voltage, and power for series circuits, parallel circuits, and series-parallel circuits.*
5. Apply circuit theorems such as superposition, Thevenin's and Norton's to the analysis of circuits.*
6. Employ mesh and/or nodal analysis techniques to analyzing circuits.*
7. Demonstrate an understanding of the properties of capacitors and their behavior under DC conditions.*
8. Demonstrate an understanding of the properties of inductors and their behavior under DC conditions.*

**ELECTRICAL ENGINEERING TECHNOLOGY TAG: DC CIRCUITS TAG COURSE
FACULTY PARTICIPANTS**

November 2016 – April 2017

Name	Institution
Rob Speckert (Review/Revision Panel Lead)	Miami University
Keith Sanders	Columbus State Community College
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