

ENER-134 USING A MULTI-METER .5 CREDITS**SYLLABUS**

CATALOG DESCRIPTION

This course introduces students to the basic concepts of the use and purpose of a Digital Multi-Meter. This class will teach the student hands-on use of a DMM with an emphasis on electrical troubleshooting. You will learn to test electric motors, capacitors, transformers, heating elements, diodes, and much more. You will also learn the proper way to test a fuse in and out of the circuit.

Prerequisites: None

Semester Offered: All

COMMON STUDENT LEARNING OUTCOMES

Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in...

BROAD AND SPECIALIZED LEARNING

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

CRITICAL THINKING

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

CULTURAL AND CIVIC ENGAGEMENT

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

EFFECTIVE COMMUNICATION

Students will exchange ideas and information with clarity in multiple contexts.

INFORMATION LITERACY

Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively

INTEGRATING TECHNOLOGIES

Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

COURSE LEARNING OUTCOMES

Upon successful completion of the course, the student will be able to...

1. Identify basic electrical symbols associated with Multi-Meters.

2. Discover different methods of testing with Multi-Meters.
3. Develop knowledge in procedures of safely using DMM's.
4. Develop skills with DMM's for troubleshooting electrical problems.
5. Determine if the DMM is measuring correctly.
6. Troubleshoot abnormal situations that occur in electrical circuits.
7. Develop safety skills when working around electrical circuits.
8. Perform hands on troubleshooting and testing of components.