COURSE SYLLABUS

LAST REVIEW	Fall 2022
COURSE TITLE	AC/DC Circuits
COURSE NUMBER	AMFT 0101
DIVISION	Career and Technical Education
DEPARTMENT	AMFT
CIP CODE	15.0406
CREDIT HOURS	4
CONTACT HOURS/WEEK	Class: 1.5 Lab: 5
PREREQUISITES	None
COREQUISITES	None
COURSE PLACEMENT	None

COURSE DESCRIPTION
AC/DC circuits addresses the basics of direct and alternating current circuits. (KBOR ALIGNED)

PROGRAM ALIGNMENT
This course is part of a program aligned through the Kansas Board of Regents and Technical Education Authority. For more information, please visit:
https://kansasregents.org/workforce_development/program-alignment

Program Learning Outcomes

1. The student will be able to assess hazards, mitigate risk, and develop procedures and protocol to create a safe working environment.
2. Student will be able to collaborate with team members in developing a plan to maximize efficiency in a production facility.
3. The student will be able to evaluate implicit tasks and identify necessary resources to install and maintain industrial equipment.
4. Student will be able to troubleshoot and repair industrial equipment in the high stress environment of modern manufacturing.

TEXTBOOKS
http://kckccbookstore.com/

METHODS OF INSTRUCTION

A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE

I. Describe and apply Ohms, Watts, and Kirchhoff laws
II. Define, demonstrate, and apply the characteristics of series, parallel, and combination circuits
III. Explain DC theory concepts
IV. Explain AC theory concepts
V. Perform and interpret electrical measurements using industry standard equipment
VI. Explain line voltage and control voltages.

COURSE LEARNING OUTCOMES

Upon successful completion of this course, the student will:

A. The student will be able to describe and apply Ohms, Watts, and Kirchhoff laws.
B. The student will be able to define, demonstrate and apply the characteristics of series, parallel, and combination circuits.
C. The student will be able to explain DC theory concepts.
D. The student will be able to explain AC theory concepts.
E. The student will be able to perform and interpret electrical measurements using industry standard equipment.

ASSESSMENT OF COURSE LEARNING OUTCOMES

Student progress is evaluated through both formative and summative assessment methods. Specific details may be found in the instructor's course information document.

COLLEGE POLICIES AND PROCEDURES

Student Handbook
https://www.kckcc.edu/files/docs/student-resources/student-handbook-and-code-of-conduct.pdf

College Catalog
https://www.kckcc.edu/academics/catalog/index.html

College Policies and Statements
https://www.kckcc.edu/about/policies-statements/index.html

Accessibility and Accommodations
https://www.kckcc.edu/academics/resources/student-accessibility-support-services/index.html.