SYLLABUS

DATE OF LAST REVIEW: 02/2013

CIP CODE: 46.0302

SEMESTER: Departmental Syllabus

COURSE TITLE: Industrial Wiring

COURSE NUMBER: ELET0250

CREDIT HOURS: 3

INSTRUCTOR: Departmental Syllabus

OFFICE LOCATION: Departmental Syllabus

OFFICE HOURS: Departmental Syllabus

TELEPHONE: Departmental Syllabus

EMAIL: KCKCC issued email accounts are the official means for electronically communicating with our students.

PREREQUISITE (S): None

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC TEC bookstore, http://www.kckccbookstore.com, for the required texts for your particular class.

COURSE DESCRIPTION:

This course will demonstrate the installation of wiring systems for a classified area, demonstrate bending ability as applied to IMC, GRC, and EMT conduit systems, to size feeders and branch circuits for multi-motor and single-motor systems and apply proper protective devices, and to learn work ethics.
METHOD OF INSTRUCTION:

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

COURSE OUTLINE:

I. Understanding classified location terminology

II. Requirements for classified work areas.

III. Requirements for metallic and non-metallic conduit systems.

IV. Bending and installing metallic conduit systems.

V. Bending and installing non-metallic conduit systems.

VI. Sizing industrial and commercial wiring systems.

VII. Protective devices for motor electrical systems.

EXPECTED LEARNER OUTCOMES:

A. The student will be able to understand classified location terminology

B. The student will be able to meet requirements for classified work areas.

C. The student will be able to meet requirements for metallic and non-metallic conduit systems.

D. The student will be able to bend and install metallic conduit systems.

E. The student will be able to bend and install non-metallic conduit systems.

F. The student will be able to size industrial and commercial wiring systems.

G. The student will be able to install protective devices for motor electrical systems.
CORE COMPETENCIES:
Upon successful completion of this course:

_The student will be able to understand classified location terminology._
1. The student will be able to explain load center.
2. The student will be able to explain motor control center.
3. The student will be able to explain buss system.
4. The student will be able to explain 4160 volt system.
5. The student will be able to explain reverse motor starter
6. The student will be able to explain cathode protection

_The student will be able to meet requirements for classified work areas._
7. The student will be able to justify certification training.
8. The student will be able to show OSHA certification.
9. The student will be able to show confined space training.

_The student will be able to meet requirements for metallic and non-metallic conduit systems._
10. The student will be able to explain training for metallic conduit.
11. The student will be able to explain training for non-metallic conduit.

_The student will be able to bend and install metallic conduit systems._
12. The student will be able to make 90 degree bends.
13. The student will be able to make back-to-back 90 degree bends.
14. The student will be able to make off-set bends.
15. The student will be able to make three-point saddle bends.
16. The student will be able to make four-point saddle bends.

_The student will be able to bend and install non-metallic conduit systems._
17. The student will be able to install PVC conduit.
18. The student will be able to install liquid seal tight.

_The student will be able to size industrial and commercial wiring systems._
19. The student will be able to determine conductor size.
20. The student will be able to use National Electric Code.
21. The student will be able to explain color code for wiring.

_The student will be able to install protective devices for motor electrical systems._
22. The student will be able to explain over current protection.
23. The student will be able to explain overload protection.
ASSESSMENT OF LEARNER OUTCOME:
Student progress is evaluated by means that include, but limited to exams, written assignments, and class participation.

SPECIAL NOTES:

This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student's progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome anytime.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

Kansas City Kansas Community College offers equal educational opportunity to all students as well as serving as an equal opportunity employer for all personnel. Various laws, including Title IX of the Educational Amendments of 1972, require the college’s policy on non-discrimination be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.

Kansas City Kansas Community College complies with the Americans with Disabilities Act. If you need accommodations due to a documented disability, please contact the Director of the Academic Resource Center at (913) 288-7670 V/TDD.