COURSE: EEM 140 | EFFECTIVE DATE: Fall 2013 | NEXT REVIEW DATE: Fall 2015

TITLE: National Electrical Code

CREDITS: 3

CONTACTS: CLASS - LAB - TOTAL

2 3 3

PREREQUISITES:

DESCRIPTION: This course is a study of the National Electrical Code and is based on the latest codes as published by the National Fire Protection Association (NFPA).

TEXTBOOK(S) OR ALTERNATIVE: National Electrical Code 2014 (NFPA) and Printreading based on 2014 NEC.

MATERIALS (specifying those to be purchased by student): Students will receive a course outline. Students will provide paper, pencils, and a scientific calculator.

COLLATERAL READING: National Electrical Code Handbook by NFPA.

CLASS MANAGEMENT ACTIVITIES (Attendance, tardies, testing, etc.):

Academic Honesty:

During a test, as well as on any written assignment, paper, or project, anyone caught exchanging information or copying someone else's work will be given a grade of "F" on that work and face further disciplinary action. Refer to the "Student Code Book" on "Academic Dishonesty".

Absences:

Students are expected to attend all scheduled classes, however, up to 10 hours of absence are allowed for unavoidable hardships such as illness or car trouble. A student missing more than 10 hours of class for any reason will be dropped from the course for excessive absences. A grade of "W" will be assigned if a student drops, or is dropped from a class prior to mid-term. After mid-term, a grade of "WF" is assigned unless there are extenuating circumstances and the student is passing the course at the time of withdrawal.

Tardies:

A student is tardy if he/she arrives for class after the instructor has checked the class roll. Three tardies will count as one absence.

Assigned Work:

If an assignment is given to the class while a student is absent, he/she is required to turn in the work on the first day back in class.
Classroom Etiquette:
An integral part of an education is developing a sense of integrity and responsibility not only toward ourselves but also towards others. In the classroom, as on the job or in your home, exhibiting appropriate behavior reflects on your maturity. Arriving on time to class, being prepared and considerate of others as they are talking has a positive effect on others. Please be considerate.

Disabilities Statement:
Students with disabilities are encouraged to contact the Vice President for Student Services to discuss needs and concerns as they pursue an academic program and participate in campus life. The Vice President for Student Services will provide guidance regarding official documentation of disabilities and/or accommodation of needs. (See College Catalog)

Student ID:
Student ID: It is mandatory that every student wear his or her student ID at all times.

During the first week of classes, the instructor will issue a reminder to wear the ID. This reminder is a warning.

Then instructors are required to dismiss students without ID from class. The student may get his/her ID (or a new one from Student Services for $3.00) and return to class before the midpoint of the class. If the student cannot get his/her ID and return to class by the midpoint, the instructor will record the absence.

RESOURCES (A-V, persons, tools/equipment):

COURSE TOPICAL OUTLINE (List topics and sub-topics of course) and Calendar or approximate length of time devoted to topic.

1. History and Development of the National Electrical Code.
2. Definitions
4. Overcurrent
5. Code Related Questions (400) Approx.

STUDENT LEARNING OUTCOMES/OBJECTIVES OF COURSE: The student will be able to use the National Electrical Code to:

1. Calculate branch circuit, service, and feeders for single family and multi-family dwelling.
2. Know the requirements for receptacles and lighting loads for residents.

3. Know the rules for service entrances for proper clearances, sizes, and grounding.

4. Calculate loads ampacity and service requirements for multi-family dwellings.

5. Know the requirements for lighting appliance and distribution panelboards, electric space heating and air conditioning equipment.

6. Know the rules for commercial and industrial services, conductors, disconnecting means, and metallic and non-metallic raceways.

7. Calculate conductor sizes and ampacity, branch circuit disconnect size and ampacity, and conductor size for motor's and transformer loads.

8. Calculate overload and short circuit protection for motors and transformers.

9. Know the general requirements for the three classes of hazardous locations.

**INSTRUCTIONAL METHODS TO COMPLETE LEARNING OUTCOMES/OBJECTIVES:**
Classroom lectures, textbook and workbook assignments and handout work sheets.

**EVALUATIVE METHODS TO APPRAISE LEARNING OUTCOMES/OBJECTIVES:**
Written tests and student demonstration

**GRADING SCALE:**
- A = 94 - 100
- B = 87 - 93
- C = 80 - 86
- D = 73 - 79
- F = Below 73