Syllabus

Department:

Electrical Technology

Course Description:

This course is an introduction to the field of residential wiring. The course will cover basic blueprint reading and construction of cable layouts as well applying code standards. The course will provide hands-on experience in the lab and on site.

Course Competencies:

Upon completion of the course, the student should be able to:

1. Apply NEC to all calculations.
2. Compute service loads.
3. Install service entrance.
4. Calculate box fill and placement of boxes.
5. Install switch and outlet boxes.
6. Calculate circuit loads and correct wire size.
7. Run cables to boxes and terminate for devices.
8. Install proper devices and insure proper operation.

Course Content:

A. Electrical Installations
B. Electrical symbols
C. Calculating required number of circuits
D. Conductor sizing
E. Conductor Identification
F. Overcurrent devices
   a. Fuses, breakers
G. Lighting
   a. Branch circuits for the whole house
H. Special purpose outlets
   a. Range, dryer, air-conditioner, water heater, etc.
I. Gas and oil central heating systems
J. Low voltage systems
K. Special systems
   a. Heat, smoke, carbon dioxide, and security
L. Service entrance equipment
M. Service entrance calculations
N. Swimming Pools
Learning Assessments:

Course competencies will be assessed by use of chapter tests, evaluation of lab work and work skills, quizzes, and a final exam.

Instructional Materials:


Guidelines for Requesting Accommodations Based on Documented Disability or Medical Condition

It is the intention of Highland Community College to work toward full compliance with the Americans with Disabilities Act, to make instructional programs accessible to all people, and to provide reasonable accommodations according to the law.

Students should understand that it is their responsibility to self-identify their need(s) for accommodation and that they must provide current, comprehensive diagnosis of a specific disability or medical condition from a qualified professional in order to receive services. Documentation must include specific recommendations for accommodation(s). Documentation should be provided in a timely manner prior to or early in the semester so that the requested accommodation can be considered and, if warranted, arranged.

In order to begin the process all students must complete the “Disabilities Self-Identification Form” at this link: https://highlandcc.edu/pages/disability-services.

This form can also be accessed at the Highland Community College homepage under Students Services/Student Resources/Disability Service or by contacting the Disabilities Coordinator.