BDT217 Construction Electricity Syllabus

Course Information

Credits 3
Campus Washburn Institute of Technology
Address 5724 SW Huntoon
City/State/Zip Topeka, Kansas 66604
Office Fax 785-273-7080

Description
This course introduces the students to the electrical field. It also provides the student with an opportunity to understand the connection between the two construction fields. The student will be introduced to series, parallel, series-parallel circuits, hardware and systems used by electricians. It also provides a navigational road map for use of the National Electrical Code.

Textbooks

Student Learning Outcomes:
A. Communicate effectively
B. Integrate technology
C. Learn effectively
D. Demonstrate cooperative teamwork skills
E. Apply safety in the workplace
F. Think critically and creatively
G. Demonstrate responsible work ethics

Competencies
1. Recognize safe working practices in the construction environment.
2. Demonstrate the use of various meters to measure voltage, current, and resistance.
3. Construct basic series and parallel circuits
4. Calculate, using Kirchoff’s voltage law, the voltage drop in a series, parallel, and series-parallel circuits.
5. Calculate, using Kirchoff’s voltage law, the total current in parallel and series-parallel circuits.
6. Using Ohm’s law, find the unknown parameters in series, parallel and series-parallel circuits.
7. Explain the purpose and history of the National Electrical Code.
8. Demonstrate how to locate information in the National Electrical Code.
9. Identify the appropriate box type and size for a given application.
10. Demonstrate the appropriate method for mounting a given box.
11. Identify the methods for hand bending and installing conduit.
12. Make 90-degree bend, back-to-back bends, offset, kicks, and saddle bends using a hand bender.

**Guidelines for Success**

**Assessment Plan**
Assessment is an integral part of the educational process at Washburn Tech and accurate feedback is an important tool in continuously improving the institution's technical programs. Students can expect to participate in assessment activities prior to entry into programs, within specific courses and following program completion for specific fields of study.

**Grading Rationale and Grading Scale**

100% - 89% = A
88% - 79% = B
78% - 69% = C
68% - 59% = D
58% & Below = F

40% - Participation = Attendance, Tardies, Work Attire, Textbook, Tools, Behavior, Clean-up
30% - Daily Quizzes & Assignments
20% - Performance Assessments (Individual Evaluations)
10% - NCCER Accrediting Exams

**Attendance**
Classroom attendance is required. Material missed must be made up with instructor.
Disability
The Special Support Services (SSS) Office is responsible for assisting in arranging accommodations and for identifying resources at Washburn Institute of Technology for persons with disabilities. Qualified students with disabilities MUST register and provide documentation with the office to be eligible for services. New requests for accommodations should be submitted two months or more prior to the date services should begin; however, contact the SSS Office as soon as a need may arise. Depending on the accommodation request, four to eight week lead time may be needed for timely and effective provision of services. SSS coordinates and assist in arranging services it deems appropriate of eligible students on a case-by-case basis.

If you are a student with a disability that may substantially limit your ability to participate in this class and believe you will need accommodations, it is your responsibility to contact:

Special Support Services Coordinator
Phone: 785-228-6356
E-Mail: ssscoordinator@washburn.edu