FIP 160A
FIRE PROTECTION/ELECTRICAL LAB

COURSE DESCRIPTION:

Prerequisites: None
Corequisites: FIP 160

This course provides practical applications to support FIP 160. Emphasis is on switching devices, basic circuits, electrical distribution, and other related topics. Upon completion, students should be able to demonstrate knowledge of basic electrical equipment and hazards as related to fire protection. Course Hours Per Week: Lab, 2. Semester Hours Credit, 1.

COURSE OBJECTIVES:

Upon completion of this course, the student will be able to:

a. Explain switiching devices
b. Explain basic circuits
c. Explain electrical distribution
d. Determine the effects of the fire on electrical conductors
e. Determine the effects of fire on electrical equipment
f. Determine the effects of fire on electrical wires
g. Analyze the result of fire on electrical systems
h. Determine the origin of electrical fire

OUTLINE OF INSTRUCTION:

I. Conductivity
   A. Water
   B. Safe distances

II. Electrostatic ignition sources
   A. Static generation
   B. Capacitance
   C. Spark discharge

III. Overcurrent protection
   A. Overcurrent protection
   B. Overcurrent protective devices

IV. Types of wiring methods and materials

A. General use
B. Special purposes

V. Electrical systems
A. Identification of conductors
B. Terminals
C. Circuits
D. Branch circuits

VI. Industrial and commercial equipment
A. Switchboards
B. Capacitors
C. Resistors and reactors

REQUIRED TEXTBOOK AND MATERIALS:

NFPA. Fire and Electricity. NFPA.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 686-3652 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1309.