

# **ELEI 110**

## **ELECTRONIC ASSEMBLY TECHNIQUES**

**2 Semester Hours**

### **The Community College of Baltimore County**

#### **Description**

##### Electronic Assembly Techniques

Discusses proper soldering and assembly techniques required by electronic equipment manufacturers; discusses the proper use of hand tools, soldering and desoldering, chassis wiring, and construction techniques including bread boarding. One hour of lecture and two hours of lab a week one semester.

#### **Overall Course Objectives.**

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

Understand the proper care and use of hand tools and test equipment. Demonstrate the necessary mechanical skills to properly disassemble, modify, or assemble electronic equipment using accepted industry practices. Demonstrate skill in making good mechanical and electrical connections. Demonstrate skill in soldering splices, terminal connections, and printed circuit boards.

#### **Major Topics**

Electric shock hazards, shop rules, tool and equipment safety, general safety procedures. Parts Identification component symbols, appearance, and descriptions, wiring diagrams, hand tools, hand tool safety, care of hand tools. Soldering tools, safety when soldering, care of soldering tools. Basic rules for soldering, a good solder joint vs. a cold solder joint, soldering P.C. boards, desoldering components from a P.C. board. Splicing, wire wrapping, and harness construction techniques.

#### **Course Requirements**

The instructor will require work samples (60%), quizzes (30%) assignments (10%).

#### **Other Course Information**

**Additional information about this course or any other Industrial electricity/electronics course may be obtained by contacting the IEE/Telecommunications Program Director.**