Course Objectives/Course Outline
Spokane Community College

Course Title: **Safety Tools**
Prefix and Course Number: **ELMT 113**

Course Learning Outcomes:
By the end of this course, a student should be able to:

- have a basic understanding of the inherent dangers of electricity
- utilize the proper tools and equipment when working on or around electricity
- develop personal safety measures when working on or around electricity
- recognize basic job safety hazards

Course Outline:

I. Tools
  A. Preventing Accidents
    1. safe practices
    2. carrying tools
  B. Maintenance and Repair
    1. inspection and control
  C. Using Hand Tools
  D. Personal Protective Equipment
    1. eye protection
  E. Electric Tools
    1. electric shock
    2. double insulation
    3. grounding
    4. cord inspection
    5. inspection and repair

II. Machine Safeguarding
  A. Zero Mechanical State
    1. power off
    2. power locked off
    3. primary protection
    4. secondary protection
  B. Guards
    1. fixed
    2. interlocking
    3. automatic

C. Electrical Lockouts

III. Flammable and Combustible Liquids
  A. General Safety Measures
    1. static electricity
    2. bonding and grounding
    3. electrical equipment
    4. spark-resistant tools
  5. ventilation

IV. Protective Equipment
  A. Eyes

1. safety glass lenses

B. Feet
1. rubber-soled boots
2. safety shoes

C. Ears
1. noise reduction
2. ear plugs

V. Equipment
A. Ladders
1. types of ladders
a) step
b) extension
c) trolley
d) trestle
e) sectional
f) fixed
g) fire
2. use of ladders
a) placement
b) ascending/descending
c) recommended practices
d) electrical hazards and metal ladders

VI. Electrical Hazards
A. Electrical Injuries
B. Electrical Equipment
1. selection
2. switches
3. protective devices
4. ground fault interrupters
5. extension cords
6. control equipment
7. motors
8. grounding
9. test equipment

C. Inspection
1. rotating and intermittent-start equipment

D. Maintenance
1. lockouts
2. removing fuses
3. wiring

VII. Material Safety Data Sheets
A. Reading and Interpreting Forms