

Print Date: 7/29/14
Course Objectives/Course Outline
Spokane Community College

Course Title: Materials and Fasteners
Prefix and Course Number: ELMT 114

Course Learning Outcomes:

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

- identify 100 common electrical materials, part & components
- identify fasteners by thread size, grade and type
- select and identify proper fasteners for a given application
- install fasteners properly and to the proper torque value when applicable

Course Outline:

- I. Electrical Materials
 - A. Identification
 - B. Ratings
 - C. Application
 - D. Installation techniques
 - E. Uses
 - F. Replacement
- II. Bolts
 - A. Types
 - B. Grades
 - C. Sizes
 - D. Function
- III. Screws
 - A. Types
 - B. Sizes
 - C. Tapping
 - D. Self-threading
 - E. Function
- IV. Nuts
 - A. Types
 - B. Grades
 - C. Sizes
 - D. Threads
 - E. Function
- V. Washers
 - A. Types
 - B. Sizes
 - C. Fender
 - D. Function
- VI. Anchors
 - A. Types
 - B. Functions
 - C. Uses
 - D. Installation
 - E. Tap-its

VII. Tools

- A. Tap and Die Set
 - 1. function
 - 2. care
- B. Allen Wrenches
- C. Easy-out
- D. Threaded Gage
- E. Reamers
- F. Ream Set (qualifying)
- G. Torques

VIII. Torque Values

IX. Selecting and Using the Correct Fastener

X.