South Central College

MTT 1230  Quality Assurance I

Course Outcome Summary

Course Information

Description  This course combines the use of precision inspection equipment, calibration of inspection equipment, methods of use for inspection equipment, print clarification and the basics of Geometric Dimensioning and Tolerancing (GD&T).  (Prerequisites: MTT 1130 and MTT 1140)

Total Credits  2
Total Hours  48

Types of Instruction

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Pre/Corequisites

MTT 1130 and MTT 1140

Institutional Core Competencies

Communication - Students will be able to demonstrate appropriate and effective interactions with others to achieve their personal, academic, and professional objectives.

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

Course Competencies

1. Determine quality requirements
   Learning Objectives
   - Identify machining symbols
   - Interpret abbreviations

2. Identify quality control methods
   Learning Objectives
   - List quality assurance tools
   - List areas of quality
3. **Explain title block**
   Learning Objectives
   Interpret print scale
   Define tolerances

4. **Identify threads**
   Learning Objectives
   Measure threads
   Explain thread geometry

5. **Perform dimensioning**
   Learning Objectives
   Define allowances
   Define size limits

6. **Perform multiview sketch**
   Learning Objectives
   Identify center lines
   Explain third-angle projection

7. **Measure with micrometers**
   Learning Objectives
   Measure diameters
   Demonstrate calibrating micrometer

8. **Measure with pin gauges**
   Learning Objectives
   Identify go and no go size limits
   Explain types of fits

9. **Measure with indicators**
   Learning Objectives
   Measure run out
   Measure concentricity

**SCC Accessibility Statement**
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Additional information and forms can be found at: [www.southcentral.edu/disability](http://www.southcentral.edu/disability)

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