South Central College

MTT 2130  Quality Assurance II

Course Outcome Summary

Course Information

Description
This course expands on the other courses concerning usage of prints and drawings in machining. Students will be provided with more learning opportunities, including continued hands-on interaction with symbols, notations, Geometric Dimensioning and Tolerancing (GD&T), inspection equipment and continuous process improvement. (Prerequisite: MTT 1230)

Total Credits 2
Total Hours 48

Types of Instruction

Instruction Type | Credits/Hours
---|---
Lecture | 1/16
Lab | 1/32

Pre/Corequisites

MTT 1230

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. Analyze multiple symbols and notations on machining prints
   Learning Objectives
   - Explain the various items on engineering drawings
   - Define a wide variety of nomenclature on prints

2. Appraise usage of tolerances
   Learning Objectives
   - Critique uses of bilateral and unilateral tolerances
Explore and evaluate use of Maximum Material Condition (MMC) information

3. **Modify prints as needed**
   Learning Objectives
   Determine effectiveness of prints
   Identify elements to modify on prints

4. **Apply engineering drawing specifics to projects**
   Learning Objectives
   Utilize information to determine steps of project
   Develop a plan based on print components
   Use drawing to create part

5. **Practice reading multifaceted drawings**
   Learning Objectives
   Explain location of print components
   Explain meaning of various elements on blueprints
   Describe project specifications after consulting drawings

6. **Determine project plan from multiple prints**
   Learning Objectives
   Identify symbols and notations to create a project plan
   Evaluate project requirements to determine content of prints

7. **Identify gauge types**
   Learning Objectives
   Calculate gauge block stack
   Describe preventative gauge block maintenance
   Explain and perform gage block ringing

8. **Identify surface plate**
   Learning Objectives
   Explain surface plate upkeep
   Describe surface plate uses

9. **Identify dial indicators**
   Learning Objectives
   Explain types of dial indicators
   Demonstrate uses of dial indicators

10. **Illustrate precision height gauge measurements**
    Learning Objectives
    Identify precision height gauge
    Identify digital height gauge

11. **Identify project specifications through blueprint creation**
    Learning Objectives
    Utilize appropriate symbols and notations to create drawings
    Construct prints based on project requirements

12. **Construct drawings that consider class of fit**
    Learning Objectives
    Devise class of fit for a project
    Apply class of fit appropriately on engineering drawings

SCC Accessibility Statement
South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class, contact the Academic Support Center to request and discuss accommodations. North Mankato: Room B-132, (507) 389-7222; Faribault: Room A-116, (507) 332-7222.

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