



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 gauge 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.

Additional information and forms can be found at: www.southcentral.edu/disability

This material can be made available in alternative formats by contacting the Academic Support Center at 507-389-7222.