This course is a continuation of Quality Assurance II. New topics include more alternative measuring

Describe plus/minus tolerances
Interpret datum reference frames
Explain datum precedence
Identify basic dimensions
Explain maximum material condition (MMC), least material condition (LMC), reference feature size (RFS) feature modifiers
Describe profile tolerancing

Create a definition drawing, manufacturing process plan, dimensional measurement plan
Describe boundaries
Explain calculating virtual size
Use perpendicularity as a refinement of position

Describe datums, datum features, datum feature simulators
Describe holes, slots, shafts, tabs, widths as datum features
Explain datum feature precedence
Identify the constraining degrees of freedom
Describe datum feature simulator requirements
Describe partial datum features

Identify flatness, straightness
Identify circularity, cylindricity

Identify perpendicularity, parallelism, angularity
Explain orientation as a refinement of location

Explain profile of a surface and line
Use profile to control size, form, orientation and location
Describe bilateral and unilateral tolerances
Explain application and verification principles
Explain profile measurement data reporting
Describe free state and restrained condition

Create datum features with a single datum axis (A-B)
Use position to control coaxiality
Describe circular runout and total runout
Describe concentricity and symmetry
Use profile to control coaxiality

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.