

Course Objectives/Course Outline
Spokane Community College

Course Title: GD & T
Prefix and Course Number: MACH 213

Course Learning Outcomes:

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

- Identify the Geometric Characteristics and understand their meaning
- Calculate available tolerances taking into account material modifiers
- Demonstrate inspection techniques for GD & T tolerances

Course Outline:

- I. INTRODUCTION
 - A Drawing standards
 - B Dimensions, tolerances, and notes
 - C Coordinate tolerancing and GD&T

- II. FUNDAMENTALS
 - A Key GD&T terms
 - B Symbols and modifiers
 - C GD&T Rules
 - D Datums

- III. FORM
 - A Flatness tolerance
 - B Straightness tolerance
 - C Circularity tolerance
 - D Cylindricity tolerance

- IV. ORIENTATION
 - A Perpendicularity tolerance
 - B Parallelism tolerance
 - C Angularity tolerance

- V. POSITION
 - A Position tolerance introduction
 - B Position tolerance - RFS and MMC
 - C Position tolerance - Special Applications
 - D Position Calculations

- VI. RUNOUT, CONCENRICITY, AND SYMETRY
 - A Circular and total runout tolerances
 - B Concentricity and symmetry tolerances

VII. PROFILE

- A Profile tolerance basic concepts
- B Profile tolerance applications