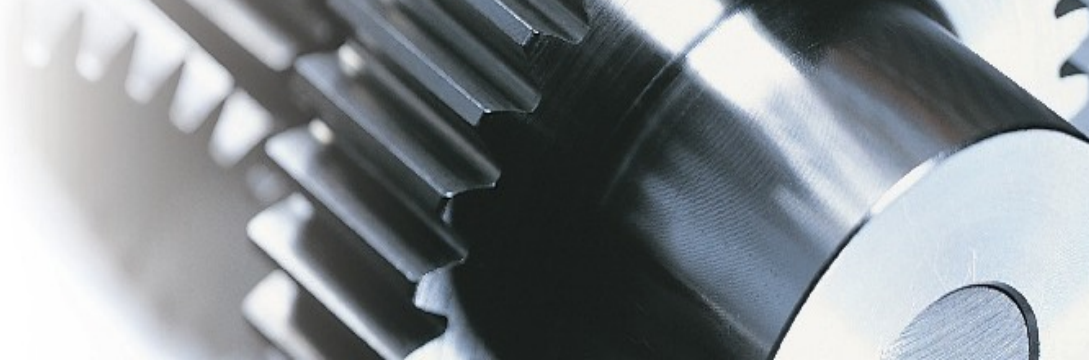
Sigmetrix



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FUNDAMENTALS OF TOLERANCE ANALYSIS

Using **TOLERANCE ANALYSIS EXTENSION** for Pro/ENGINEER

Course Description

This combined instructor-led and laboratory course provides students using Pro/ENGINEER's **Tolerance Analysis Extension** with hands-on training on the Fundamentals of Tolerance Analysis within the **Tolerance Analysis Extension** environment.

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Course Objectives

When designing a product in a CAD system, it is important to remember that the CAD model is a perfect theoretical representation of that product. However, when the product is manufactured, there will always be some variation in the dimensions of individual parts over an entire product run.

The objective of this course is to provide students with the fundamentals of how to achieve the delicate balance between tight tolerances desired by engineering to achieve the best product performance and loose tolerances desired by manufacturing to reduce costs and maximize process capability.

Students will have the opportunity to apply the knowledge that they have gained on their own designs using **Tolerance Analysis Extension**.

Course Agenda

Day 1

- *Understanding Tolerance Fundamentals*
- *Modeling using **Tolerance Analysis Extension***
  - *Software Interface*
  - *Measurements & Dimensions*
- *Interpreting Analysis Results*
  - *Variation Plot*
  - *Sensitivity Plot*
  - *Contributions*

Day 2

- *Modeling Using Customer Models*
- *Defining Best Practices*
- *Handling Complex Models*
- *Integrating into your Process*

Prerequisites

- Knowledge and accessibility to Pro/ENGINEER Wildfire 4 or Wildfire 5
- Basic Pro/E modeling skills
- Accessibility to Pro/E's Tolerance Analysis Extension

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Class Structure

- On-site, instructor-led, maximum 8 students.
- 2 Days