

CETOL 6 σ Basic Training Course, 3 Days

In this class, you will learn to use CETOL to perform tolerance stack-up analyses on Creo/SolidWorks/CATIA parts and assemblies. You will learn the process of setting up a tolerance model and then perform worst-case and statistical studies. You will also learn to how to use the analyses to identify critical-to-quality dimensions and how to incorporate manufacturing data in the analyses to get accurate real-world predictions of quality.

The topics of CETOL 6 σ Basic Training include the following:

- **TOLERANCE ANALYSIS FUNDAMENTALS**

- Tolerance design process
- Worst-case design and analysis
- Review of basic statistics
- Statistical design and analysis

- **GETTING STARTED WITH CETOL**

- CETOL interface
- Communication with Creo/SolidWorks/CATIA
- CETOL preferences

- **ASSEMBLY TOLERANCE MODELING**

- Define design specifications
- Defining assembly constraints

- **PART TOLERANCE MODELING**

- Dimension schemes
- Overlay dimensioning

- **VARIATION ANALYSIS**

- Define manufacturing variations
- Part producibility analysis
- Design specification performance analysis
- Multi-specification rollup analysis
- Fastener shift and fit analysis
- Report generation

- **Analyzing “What-if” Tolerance Scenarios**

The first three days of course involve traditional software training. The final two days are dedicated to applying the software to practical assembly tolerance problems. Students are invited to bring their own assemblies to work on, but it need to be sent to Ariadne 2 weeks before the course starts. Several practical examples are also provided.