

Design of Experiment

Training Overview:

This Design of Experiments (DOE) course equips participants with a practical approach to planning and running experiments that identify key process factors and improve performance. Participants learn how to design efficient trials, reduce trial-and-error, and make data-driven decisions.

Through hands-on exercises and real-world application, participants select factors, run experiments, and analyze results to optimize processes. The course emphasizes measurable impact, including reduced experimentation costs, improved yields, faster problem resolution, and stronger process performance.

Training Objectives:

- Define Design of Experiments and its role in process optimization
- Understand how Lean principles improve experimentation efficiency
- Identify key process factors and interactions
- Select effective experimental designs
- Collect accurate data and perform basic analysis
- Interpret results to determine optimal settings
- Quantify savings from reduced experimentation and improved yields
- Connect DOE results to ROI and process performance
- Apply DOE within Lean Six Sigma projects
- Use experimental thinking to support continuous improvement