



CONTINUING EDUCATION

Design FMEA

CEQAL 506

Suboptimal designs often results in downstream problems such as product redesign, product nonconformities or warranty issues. Design FMEA is a methodology used to reduce design risk to an organization and its customers. Using the DFMEA methodology, an organization can evaluate the risks in its product designs, prioritize those risks and take targeted action to reduce that risk, thus proactively addressing potential quality, cost, safety and delivery concerns. This workshop-intensive seminar addresses each step of the DFMEA process and allows participants to work in a team environment during the construction of a DFMEA.

Who Should Attend: Individuals from engineering, quality, purchasing manufacturing or other areas who might participate in the development of a Design FMEA.

Prerequisite: None

CEU's Credit: 1.6

Duration: 16 Hours – 2-day course

Course Content:

Introduction to FMEA

- The FMEA Process Within a System of Advanced Quality Planning.
- FMEA and the Overall Improvement Strategy
- Interrelationships Between System, Design and Process FMEA
- QFD and its Interrelationship to Design FMEA
- The Benefits of Design FMEA

The FMEA Process

- FMEA: A Team Effort
- Information Sources for Use in the Design FMEA
- Using Functional Block Diagrams with Design FMEA
- Failure Mode Brainstorming and Evaluation
- Using the Cause and Effect Diagram to Analyze failure Modes
- Identification of Current Controls
- Estimating the:
 - Severity of the Potential Effects

- Occurrence Rate of Cause/Failure Mode Mechanism
- Capability of Design Process Controls to Detect the Failure Modes
- Documenting the FMEA

Using FMEA to Improve Designs

- Prioritizing Failure Modes
- Developing Recommended Actions
- Using Design FMEA to Drive:
 - Product Design Changes
 - Prototype Control Plan
 - Process FMEA
- The Design FMEA as a Living Document

Each participant will receive a comprehensive manual and a Certificate of Completion at the close of the seminar.