



Course Title

AIAG-VDA PFMEA (Process Failure Mode and Effects Analysis)

Overview

FMEA has been re-written to accommodate the new requirement of the industry to both fulfill the AIAG (Automotive Industry Action Group) & VDA (Verband der Automobilindustrie) requirement, which supersedes AIAG 4th Edition FMEA and VDA. Volume 4. The intention is to provide a common foundation for FMEA across the sectors of the automotive industry which are represented by these 2 organizations.

In this training, participants will understand the difference between the new AIAG-VDA FMEA and the classic FMEA.

Learning Outcomes

This course is designed for participants to:

- Be aware of the new AIAG-VDA FMEA 1st edition 2019
- Understand the 7 steps methodology in AIAG-VDA FMEA
- Conduct FMEA studies as per the new requirement which supersedes the 4th Edition of AIAG FMEA
- Understand the supplemental FMEA-MSR
- Comply with the new AIAG-VDA FMEA requirement for new process design and development

Who must attend

Managers, supervisors, team leaders, and other professionals involved in planning, design, or implementation of a system or process and want to improve their ability to lead a proactive change and improvement to their operations.

Methodology

Case studies, small group practical exercises, small group discussion, facilitator presentations, skill practices, application planning and walk-through simulations. **Pre-test and post-test will be used to measure effectiveness.**

Course Outline

- AIAG-VDA PFMEA vs. Classic PFMEA
 - Significant difference and impact compared to the current PFMEA
- The FMEA 5 T's
- Execution of the FMEA (Process)
 - The 7 steps process
 - 1st step – Planning and Preparation
 - PFMEA project identification and boundaries
 - PFMEA project plan
 - Identification of the baseline for PFMEA
 - Basis for structure analysis
 - 2nd step – Structure analysis
 - System structure
 - Process Flow diagram
 - Structure Tree
 - Collaboration between customer and supplier
 - Basis for function analysis
 - 3rd step – Function analysis
 - Function
 - Requirements of characteristics
 - Visualization of functional relationship
 - Function analysis
 - Collaboration between engineering teams (systems, safety, components)
 - Basis for failure analysis
 - 4th step – Failure analysis
 - Difference between process and design failures
 - Failures Chain
 - Failure effects, mode and cause
 - Basis for risk analysis

- 5th step – Risk analysis
 - Process control
 - Current prevention and detection controls
 - Evaluations
 - S,O,D, AP ranking
- 6th step – Optimization
 - Assign of responsibilities
 - Status of actions
 - Assessment of action effectiveness
 - Continual improvement
- 7th step – Result Documentation

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