Failure Mode Effects Analysis (FMEA)

2 Days

Training Description:

The goal of the class is to introduce the concept of Failure Mode Effects Analysis (FMEA). There are two key FMEA's -a Design FMEA (DFMEA) and a Process FMEA (PFMEA) . This tool is a Pro-Active tool versus a Reactive tool (i.e., Root Cause/Corrective Action tools). The goal of this tool is to prevent events based on the FMEA analysis which calculates a Risk Priority Number (RPN). High RPN numbers require action to reduce the RPN number to a suitable level. The goal of the FMEA is a Risk Mitigation tool which identifies the risk and the high-risk situations require action/change to reduce the potential risk. FMEA is a great tool to change your culture from "Fire Fighting" to a Pro-Active culture.

Training Objective:

This 2-day FMEA class will introduce the FMEA tool and what is required to apply the tool within your organization. The goal is to use FMEA to be pro-active versus a reactive organization which will improve the Form Fit and Function (3 F's)/Safety- (DFMEA) and improve the quality of the product (PFMEA).

Skill Attainment:

The student will understand the requirements of implementing the FMEA tool within your organization and how to apply the tool. The following topics will be taught during the class

- Introduction to FMEA-pro-active tool/risk mitigation tool
- Hands on Exercise to Create a PFMEA
- Hands on Exercise to Create a DFMEA
- Types of FMEA's-DFMEA/PFMEA
- Challenges to Implementing FMEA within your organization
- Layout of a FMEA template
- Establishing Severity Ratings
- Industries Requiring FMEA to meet ISO standards
- Establishing Occurrence Ratings
- Establishing Detection Ratings
- Calculating RPN (Risk Priority Number)
- Setting a RPN Threshold value for Corrective Action
- Creating a Fault Tree to Determine Failure Modes