

## Core Tools

### Course Description

Knowledge and effective use of the AIAG automotive core tools is one of the most important mechanisms for an organization who wants to develop a robust quality management system, and consistently manage its key processes.

This course is intended to provide attendees with an overview of, and introductory instruction in, the Automotive Core Tools:

- FMEA** - Failure Mode & Effects Analysis
- APQP** - Advanced Product Quality Planning
- PPAP** - Production Part Approval Process
- MSA** - Measurement System Analysis
- SPC** - Statistical Process Control

### Who Should Take It

Individuals with responsibility for management, operation, implementation or maintenance of a TS 16949:2009 Quality Management System. This includes, but is not limited to:

- ISO Coordinators, Quality Managers & Management Representatives
- Senior Management
- Members of the Quality Team and/or Internal Audit Team
- Engineers and Manufacturing Managers/Coordinators
- TS 16949:2009 Auditors, Quality Professionals and Consultants

### Learning Objectives

The course will provide participants with a working knowledge of FMEA, APQP and PPAP, and also delivers an understanding the principles used in MSA and SPC. This practical workshop will include discussions, presentations and hands-on experience. Participants will learn how to utilize:

#### Failure Mode & Effects Analysis (FMEA)

As a tool to allow the company to:

- List and rank the cause of failures.
- Prioritize actions to decrease the likelihood of failure occurrence and the associated risks.
- Examine the potentials consequences of that failure.

### Advanced Product Quality Planning (APQP)

As a business tool designed to ensure:

- The successful planning, launch and production start up of a product.
- Tremendous value by ensuring products and process are designed to provide "right first time" quality.

### Production Part Approval Process (PPAP)

Defines generic requirements for:

- Production part approval.
- Demonstrates supplier understanding of all customer and production specifications are understood.
- Demonstrates capacity and capability to meet requirement of actual production.

### Measurement System Analysis (MSA)

Presents the guidelines for selecting procedures to assess the quality of a measurement system. This course not provide detailed instruction on the statistical methods used in MSA.

### Statistical Process Control (SPC)

Course offers a brief review as an explanation of what it is and how it assists as a tool. This course does not provide considerable depth for SPC as this is very specialized training usually presented by an engineer to participants with certain knowledge of mathematics.

## **Prerequisites**

Attendees should already be familiar with the TS 16949:2009 standard and its requirements for quality management systems. "Understanding & Implementing TS 16949:2009" is strongly recommended as prerequisite training.

## **Location**

Public Venue or On-Site

## **Duration**

2 Days

## **CEUs (Continuing Education Units):**

1.6