Understanding Core Tools (APQP/PPAP, DFMEA, DVP&R, SPC and MSA) Following the AIAG FMEA 4th Edition Methodology

Course Duration: 5 Days - 8 Hours/day

Understanding Core Tools (APQP/PPAP, DFMEA, DVP&R, SPC and MSA) Following the AIAG FMEA 4th Edition Methodology

Course Duration: 5 Days

Seminar Content

Collectively, this five-day series of seminars are intended to provide a basic understanding of the Advanced Product Quality Planning (APQP) Core Tools and their use in New Product Development to ensure a successful launch and capable serial production. These Core Tools play a significant role in the planning, development, and launch of new products and processes.

These Core Tools include the following:

1. The five phases of APQP itself

2. Production Part Approval Process (PPAP)

3. Design Failure Modes and Effects Analysis (DFMEA) and Design Verification Plan & Report (DVP&R)

4. Statistical Process Control (SPC)

5. Measurement Systems Analysis (MSA)

Please note, only DFMEA or PFMEA can be taken in a single, one-week session. These courses will cover the AIAG FMEA 4th Edition methodology.

Learning Objectives

- Understand the five phases of APQP for New Product Development and its relationship to program management and the knowledge and skills needed to participate in an APQP team

- Understand the PPAP protocol, elements, deliverables, and submission/approval process

- Understand how to develop and use DFMEA and DVP&R to identify and address design risk during the product development process and in support of the manufacturing process development process

- Understand the use of SPC to monitor and measure variation in manufacturing processes ad to identify and the correct problem where they arise

- Understand MSA and the statistical tests employed to determine measurement variation and measurement uncertainty for the effective management of measurement systems

Seminar Outline

Weekly Agenda

- Day 1: APQP and PPAP

- Days 2 and 3: DFMEA

- Day 4: SPC

- Day 5: MSA

Who Should Attend

This seminar is designed for Internal Auditors, Management Representatives, ISO 9001 and IATF 16949 Implementation Teams, and others who would like to develop judgment and decision-making in ISO 9001, IATF 16949, and to learn how to effectively audit the New Product Development activities.

Seminar Materials

Each participant will receive a seminar manual. All concepts will be introduced using examples. Group exercises will make use of an example product and process.

CONSULTING · TRAINING · SOFTWARE

Understanding Core Tools (APQP/PPAP, DFMEA, DVP&R, SPC and MSA) Following the AIAG FMEA 4th Edition Methodology

Course Duration: 5 Days

Pre-Requisite

Participants should possess a working knowledge of, as well as some experience in ISO-based quality management systems, as well as a firm understanding of basic quality tools.

CONSULTING · TRAINING · SOFTWARE