ADVANCED PRODUCT QUALITY TRAINING

Course Title: Advanced Product Quality Training

Course Validity: 2 Days

Validity: Not Applicable

HRD Corp Scheme: Claimable

INTRODUCTION

This training provides participants with an in-depth and practical understanding of advanced product quality concepts, focusing on how to enhance customer satisfaction, improve product performance and ensure robust quality control throughout the product lifecycle. The course explains advanced quality tools, product validation techniques, defect prevention methods and risk-based approaches that help organisations strengthen design quality, manufacturing quality and supplier quality performance. Participants will explore industry-recognised methodologies such as APQP, FMEA, Control Plans, Capability Studies, MSA, SPC and structured problem-solving models. Through case studies, hands-on activities and real-world applications, participants will gain the capability to manage product quality strategically, reduce nonconformities, improve process stability and drive continual improvement across operations.

OBJECTIVE(S):

- Understand advanced quality management concepts and tools.
- Apply structured methodologies for product and process quality enhancement.
- Strengthen knowledge in APQP, FMEA, Control Plans and validation processes.
- Use statistical tools such as MSA, SPC and capability analysis effectively.
- Identify and address product risks using risk-based thinking.
- Improve cross-functional communication for product quality planning.
- Enhance decision-making through data and evidence-based analysis.
- Support continual improvement and customer satisfaction.

TARGET GROUP(S):

- Quality managers and engineers

- Production and process engineers

- R&D and design personnel

- Supplier quality engineers

- Manufacturing and operations teams

- Internal auditors and quality system representatives

ENTRY REQUIREMENT(S):

- Able to read, write and communicate verbally in Malay/English

TOPIC(S):

1. Introduction to Advanced Product Quality Concepts

2. APQP Framework and Quality Planning Requirements

3. Design and Process FMEA for Risk Identification

4. Control Plan Development and Implementation

5. Measurement System Analysis (MSA) for Advanced Review

6. Statistical Process Control (SPC) and Capability Studies

7. Product Verification, Validation and PPAP Requirements

8. Problem Solving Methods (8D, Root Cause Techniques) and Continual Improvement

LIST OF REFERENCE BOOK(S):

- AIAG APQP & Control Plan Manual

- AIAG FMEA Manual

- AIAG MSA and SPC Manuals

- ISO 9001 Quality Management Guidelines

LIST OF TEACHING AID(S):

- LCD projector

- Computer

- Whiteboard with accessories

- Flip chart with accessories

- Quality planning templates and case study datasets

METHODOLOGY(S):

- Lecture

- Group discussions

- Case studies

- Hands-on workshops

- Data analysis and problem-solving exercises

MTBM

TRAINING SCHEDULE

Day 1

Time	Activity / Topic
8:30 am – 9:00 am	Registration and Introduction
9:00 am – 10:15 am	Topic 1: Introduction to Advanced Product Quality Concepts
10:15 am – 10:30 am	**Morning Tea Break**
10:30 am – 12:30 pm	Topic 2: APQP Framework and Quality Planning Requirements
12:30 pm – 1:30 pm	**Lunch Break**
1:30 pm – 3:30 pm	Topic 3: Design and Process FMEA for Risk Identification
3:30 pm – 3:45 pm	**Afternoon Tea Break**
3:45 pm – 5:00 pm	Topic 4: Control Plan Development and Implementation

TRAINING SCHEDULE

Day 2

Time	Activity / Topic
8:30 am – 9:00 am	Recap of Day 1
9:00 am – 10:15 am	Topic 5: Measurement System Analysis (MSA) for Advanced Review
10:15 am – 10:30 am	**Morning Tea Break**
10:30 am – 12:30 pm	Topic 6: Statistical Process Control (SPC) and Capability Studies
12:30 pm – 1:30 pm	**Lunch Break**
1:30 pm – 3:30 pm	Topic 7: Product Verification, Validation and PPAP Requirements
3:30 pm – 3:45 pm	**Afternoon Tea Break**
3:45 pm – 5:00 pm	Topic 8: Problem Solving Methods and Continual Improvement