



Quality-One International

New Product Introduction (NPI) Course Outline

- Introduction to New Product Introduction (NPI)
 - Voice of the Customer (VOC)
 - Critical Requirements Definition
 - Technical Specifications
 - Process Selection and Parameters
 - Product and Process Validation
 - Production
 - Lesson Learned
- NPI Process Approach in Timing and Delivery
 - Technical Path
 - Cost Path
 - Delivery Path
- Lean Product Development Principles
- Developing a Product Assurance Plan
- Best Value Reliability Tools within NPI
 - Voice of the Customer (VOC)
 - Quality Function Deployment (QFD)
 - Critical to Quality (CTQ)
 - Technical Specifications
 - Product Specifications
 - Design for Manufacturing and Assembly (DFM/A)
 - Design Failure Mode and Effects Analysis (DFMEA)
 - Test Planning Verification
 - CTQ Special (Key) Characteristics
 - Process Flow Diagram
 - Process Failure Mode and Effects Analysis (PFMEA)
 - Control Plan
 - Measurement Systems Analysis (MSA)



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- Gage Repeatability and Reproducibility (Gage R&R)
- Statistical Process Control (SPC)
- Production Part Approval Process (PPAP)
- Safe Launch (subcontract)
- NPI Training Exercises
 1. Product Simulation: Product Assurance Plan
 2. Product Simulation: DFMEA
 3. Special Characteristics
 4. Process Simulation: Process Flow
 5. Process Simulation: PFMEA
 6. Control Plan
 7. Process Capability / Tolerance Design
 8. PPAP (Internal and External)