

## Quality Core Tools Training Certificate

The **Quality Core Tools Training certificate** is made up of the five (5) Core Tool courses APQP – Advanced Product Quality Planning, PPAP – Product Part Approval Process, FMEA – Failure Mode and Effects Analysis, MSA – Measurement System Analysis, and SPC – Statistical Process Control. Taking these courses together allows the student to enhance their knowledge and application of the tools to work together and provide effective continuous improvement results for their company and customers. The Core Tools Training certificate is one of four (4) certificates in the Quality Management Processes Pathway.

Non-Credit Course Code	Course Title	Hours	Days
CQLY 8025	APQP – Advanced Product Quality Planning	8	1
CQLY 8023	PPAP – Product Part Approval Process	8	1
CQLY 8029	FMEA – Failure Mode and Effects Analysis	8	1
CQLY 8008	MSA – Measurement System Analysis	8	1
CSPC 8005	SPC – Statistical Process Control	8	1
A certificate of completion will be awarded to students who successfully complete the above courses.		40 hours	5 days

### APQP - Advanced Product Quality Planning – CQLY 8025 – 8 hours

*Prerequisite: None*

This eight (8) hour course focus' on the implementation and execution of APQP (Advanced Product Quality Planning) processes. APQP is a structured method of defining and establishing the steps necessary to ensure that a product satisfies the customer's needs. Effective product quality planning depends on a company's top management's commitment to the effort required in meeting customer specifications.

### PPAP - Production Part Approval Process – CQLY 8023 – 8 hours

*Prerequisite: None*

This eight (8) hour course enables the student to learn the PPAP (Production Part Approval Process) and how to apply the voice of the customer (needs/wants/expectations). This course will give the participant a general understanding of the PPAP with emphasis on customer satisfaction; it is designed to show the participant how to build a PPAP based off facts and data and how to submit it to the customer.

### FMEA – Failure Mode and Effects Analysis - CQLY 8029 – 8 hours

*Prerequisite: None*

This eight (8) hour course focus' on how FMEAs should be used during product and process development to identify function, potential failure of that function, effect of that failure, current controls to prevent failure, and prioritization of recommended actions. Participants should be Product and Process Designers and Engineers and others who will support the process, such as quality and management personnel.

### MSA - Measurement System Analysis – CQLY 8008 – 8 hours

*Prerequisite: None*

This eight (8) hour course focus' on the fundamentals of MSA/GRR in both average (short) and average range (long) methods. Other analytical methods for attribute gauges and ANOVA will be discussed. Participants should be quality personnel or others responsible for implementation and proper conduct of MSA/GRR.

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## **SPC - Statistical Process Control – CSPC 8005 – 8 hours**

*Prerequisite: None*

This eight (8) hour course teaches the fundamentals of the planning, collection, and analysis of product and process data using variable control charts (Xbar & R) and process capability (Cpk.Ppk) calculations. Participants should be quality personnel or others responsible for the identification and implementation of product and process control.

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### **Additional areas of Quality Management Processes training:**

- AS9100
- CMM Levels I-III
- IATF 16949
- Internal Auditors
- Kaizen
- Laser Tracking
- Metrology
- Six Sigma Green Belt Certification
- TS – 16949/ISO 9100