

GSHA QUALITY SERVICES  
455 E. Eisenhower Pkwy  
Suite 300  
Ann Arbor MI 48108

Valued Customer  
Street Address  
City, ST ZIP Code



Fall/Winter  
Edition

2019

Quality Career  
Pathway Curriculum

*Preparing you today for a  
career in quality control and  
continuous improvement*

# GSHA Training Catalog

Quality Control Classes & Workshops



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### Classes and Workshop Principal Instructor

**Shelia M Harden**, BSEE, MBA, CSSBB, ISO Lead Auditor (ISO9001, ISO13485, TS16969)  
**Responsible for the Quality (Core, Technical, and Leadership) Modules**

Shelia Harden is a globally accomplished Lean Six Sigma quality administrator with over 20+ years of experience revitalizing, restructuring, improving growth, and launching new processes and products. Ms. Harden is a transformationist, who supports organizations in rising to the next level of continuous improvement and compliance.

With a keen understanding of ISO accreditation standards (automotive, aerospace, Quality, environment, medical devices), Lean, and Six Sigma, she offers excellent relationship building, communication and influencing skills to strategically guide/train cross-functional teams on how to identify, collect, and organize data so it practically speaks enabling them to then leverage the value-added data to guide organizations in reaching the next level of performance improvement.

**INDUSTRIES:** Automotive (20+), Aerospace, Medical, Rail, Power Energy, IT, and Communication

**COUNTRIES:** Brazil, Taiwan, Spain, China, India, South Africa, Mexico, Japan, France, Germany, Sweden, Switzerland, EMEA, Canada, and the United States.

**Expertise:** Lean Manufacturing Principles, ISO Regulatory Compliance, Six Sigma Process, Lean, Supply Chain Management, Quality Operation System, APQP, DOE, PPAP, 8D, A3, Policy Deployment



## Why GSHA Quality Services?

GSHA believes we have the business solution with our quality training curriculum and quality staffing strategy to support the growing trend (skilled quality assurance professionals) for jobs within the automotive and aerospace industries.

Our quality staff is proficient in the quality courses identified in our catalog. GSHA also provide quality training for second chance (ex-felon) programs, high-risk /GED programs, and temporary staffing companies to prepare individuals for a career pathway in quality assurance. Upon completion of the training, we place and/or install the individuals in automotive manufacturing sites as quality sorters, quality coordinators, or quality liaison (rep) who are certified six sigma green belts with a specialization in data collection and data analysis.

As well, we offer additional virtual and face-to-face coaching/consulting available to our clients upon completion of the class to increase the understanding by applying the learning within the work environment

### Testimonies:

*"The SSGB class was great! Shelia does a great job of keeping it interesting. I have been in many of those classes as a student and a teacher, and have never seen it delivered as well as you do." \_\_ Plant Quality Manager, Piston Automotive*

*"This course was impressive due to the instructor's extensive knowledge with the subject and teaching style. There are no changes I would recommend. I believe that this class should be taken by all [in the organization]" \_\_ Class Participant, 2016*

*"I count the opportunity that I had to work with you and learn from you as a blessing! The impact you had was phenomenal. I was offered a new job with relocation pkg with only a GED and (1) company on my resume. What set me aside from all of my competition was my Six Sigma certification. I cannot thank you enough for all your help and patience in completing the requirements" \_\_ GSHA graduate, 2017*

*"The consultant's extensive knowledge in quality systems has played a major role in the transformation of our processes and people in the short time she worked with us." \_\_\_\_\_ Dir Supply Chain Quality, Alstom Power Systems, Baden Switzerland*

*"Course was great! Instructor was very knowledgeable. Made the class very fun and easy to follow. " \_\_\_\_\_ 8D class participant's feedback, 2018*

*"Class was very good. I have had the class before with Ford and this was a lot more understanding through real life experiences. Job well done!" \_\_ SSGB class feedback, 2018*

## Introduction

### Employment Outlook

This is an exciting time to commit to a career path in Quality Control! Based on the 2019 U.S. labor statistics, quality inspection job opportunities are expected to rise over the coming decade (2028) as quality control inspectors retire or leave the occupation for other reasons. Currently the state of Michigan has the highest concentration of jobs and location quotient in this occupation. The demand for individuals who are skilled in quality control have the highest employment in the temporary service industry and automotive and aerospace manufacturing industry (throughout the U.S.)

The individuals who are prepared to capitalize on these opportunities are those quality assurance professionals who have certification in the field with related work experience. Why? The past practices of GED or high school diploma and on-the-job training is not enough to be proficient in the ever-changing data analytics and data automation technology today. Both current and future trends show quality assurance professionals need to be proficient in the use of quality tools to 1) collect the "right" data, 2) analyze the data to develop graphs, and 3) identify patterns in the data to assist the business in solutions for continuous improvement. GSHA quality training curriculum and job placement program supports this growing trend (skilled quality assurance professionals) for jobs within the product manufacturing industry.



## Introduction

### Who We Are



GSHA is a certified minority, women-owned quality management firm that specialize in quality training, consulting, and staffing. We are a one-stop quality support service company for parts manufacturers to address their every quality manufacturing service need. GSHA was founded in 2009 as a Limited Liability Corporation by CEO/Principal Consultant, Shelia Harden. After 25+ years in the automotive industry working globally as a quality administrator helping organizations achieve greater value and higher returns by stabilizing processes, eliminating waste, and improving overall operating efficiency, Ms. Harden formed the company to help support the automotive component suppliers improve their quality through consulting and training. She expanded the business in 2016 to include the quality career pathway curriculum and job placement/ staffing program.

### About Our Training Program

Our quality classes and workshops are designed to be fast, practical, and industry recognized for helping an individual (with no experience or some experience) improve their skill set of quality tools, techniques, and methodologies necessary to become proficient in any quality assurance role.

#### GSHA Course Advantage

- Hands-on industry and job oriented (real-life) examples & exercises.
- All classes are short (1 -5 days) in duration to minimize time away from daily activity.
- Courses designed by experienced quality management professional based on proven coaching and experience in the industry.
- Team-oriented classroom learning to simulate real-world team interaction in problem-solving.
- Visual management manuals for ease of clarifying processes, techniques, & standards.
- All course material (workbook, instructional manual, and/or study guide, reference sheets, quizzes, etc.), included with course.
- Certificate upon completion.

### Location and Class Set-up:

GSHA classes are offered both remotely (at the customer site) or onsite at our office located at 455 E. Eisenhower pkwy, Suite 300 Ann Arbor MI 48108.



Typical Classes onsite may accommodate up to 20 participants. Tables are arrange to accommodate 4 -5 people (team) per table and are placed to allow full view of the front of the room and easy conversation flow for full participant participation. Team members are place at each table for ease of interaction and discussion.



### GSHA Industry 4.0 is Here!

The fourth industrial revolution has begun! It is changing the way work is done on the plant floor to drive manufacturing plants to higher levels of performance improvement. As technology continues to push the agenda of a safer and efficient workforce via IIOP, real time data collection/reports, and Artificial intelligence, many manufacturing jobs are being redefined.



GSHA has spent time researching and developing applications and training to assist both individuals and companies who are ready to invest for success into the future the manufacturing industry 4.0.

With our new “paperless” quality inspection app, we can deliver the “right” data in real-time to your phone or tablet. Our mobile app provides visual dashboard of data analytics to provide insights to help identify root cause and resolve issues quickly.



Our quality career pathway training curriculum is segmented into (3) levels of training; A – level is the core quality tools and techniques for everyone preparing to perform a quality function. B – Level quality courses are designed for the individual who desires a deeper understanding of the quality tools and techniques to specialize in a career in quality control. C-level quality courses are designed for the individual pursuing a leadership role in the career of quality control.

#### Competency and Training Framework

Training Type	Target Participant	Task
(A) Core Quality Tools	Everyone	Execute, Implement Work
(B) Technical/Specialize Quality Tools	Job Specific	Organize, Prioritize Specific Projects
(C) Leadership Quality Tools	Leaders	Set Directives, Objectives, Strategy

Completion of 6 – 8 week curriculum, an individual is typically prepared to start or improve career in Quality Control (QC).

Quality Positions	Manufacturing Industry
Quality Control Coordinator, Inspector, Analyst, Liaison, or Quality Tech	Automotive, Medical device, Transportation, Aerospace,

#### What is Quality Control?

Quality Control is the process of checking for defects in the product to prevent passing the nonconformity on to the next stage customer.



- At IQ, QC stops the defect from entering the process and encourages building it right the first time.
- By detecting the defect in the process **before** the process is finished, QC helps reduce production slowdowns due to rework, re-builds, etc.
- By stopping defects after the product has been manufactured, QC helps prevent releasing defects to the final assembly (OEM) site or the retail customer

**What does a Quality Control Inspector do?**

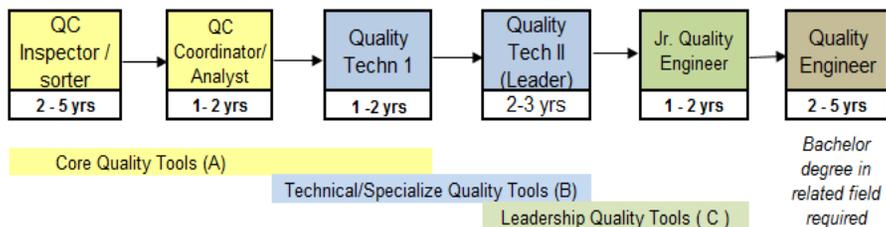
A Quality Control inspector is responsible for ensuring that products and services meet the established standards set by the company. Duties include maintaining strong overall quality control of products made by the company adhering to reliability, performance and customer expectation. Inspection of products is part of the job with the obligation to report and document findings. Although high school diploma or equiv. was often enough, today's industry requires an individual with specific quality-focus training or experience to be able to perform the work. (See Industry 4.0 on page 16.) GSHA training prepares the individual to achieve the skill sets needed. Depending on the organization, the typical job progression for a quality control inspector is to a managerial role

**Responsibilities for Quality Control Inspector**

- Inspect products to ensure that they meet quality standards
- Create tests for quality control of products
- Disassemble product parts to inspect them individually
- Monitor production operations to ensure conformance to company specifications
- Ensure products meet customer expectations based on company objectives
- Communicate the results of inspections and put forward corrective suggestions
- Write reports to document deficiencies and errors of products

**Qualifications for Quality Control Inspector**

- Proven experience as a quality control inspector in the same industry preferred
- Proficient in computer word processing and Microsoft Office applications
- Strong regard for quality control according to company standards
- Good knowledge about industry products and processes
- Basic mathematical arithmetic
- Excellent oral and communication skills
- Excellent presentation and reporting skills
- Good team player who can work efficiently with minimal supervision

**Typical Quality Control Career Path****Classes and Workshops****Supplier Quality Management (SQM)**

Supply quality management (SQM) is a business management process to maximize the value of the supply chain's ability to deliver goods or services to satisfy the business requirements. The SQM aids the supplier to deliver the right material (or service) in the right amount, to the right place, at the right time, and at the right price. This course is segmented into (4) key area(s)

**Sourcing Decision and Selection**

In this segment, the participant will understand who are the suppliers and define the requirement the suppliers must meet to be added to the approved sourcing list (ASL) for the Commodity or business. The topics include: sourcing strategy, supplier qualification process, Sourcing approval list and the statement of work (SOW) specifications.

**Level: B Dur: 1 days Price: \$295**

**Supplier Performance Monitoring (SPM) and Recognition Program [C]**

The goal of supplier performance monitoring is to measure, analyze, and manage the supplier's performance in an effort to cut costs, alleviate risks, and drive continuous improvement. In this segment, the supplier AQP progress report, part approval data and performance scorecard will be discussed. As well, supplier recognition programs are develop to identify and reward performance & encourage continuous improvement.

**Level: B Dur: 1 days Price: \$295**

**Supplier Evaluation and Performance Management [C]**

Supplier evaluation is the process of assessing both the existing or new supplier on the basis of their delivery, prices, production capacity, and quality of management, technical capabilities, and service. In this segment, the supplier risk will be analyzed and a supplier development plan with deliverables will developed to include supplier training, AQP involvement, and onsite support.

**Level: B Dur: 2 days Price: \$425**

**Relationship Mgmt. & Collaboration [C]**

Supplier relationship management (SRM) is key to receiving the maximum supplier contributions and influence on the success on the business relationship. Did you know, external resources (suppliers) typically contribute to greater than 75% of quality, delivery, and cost performance? The goal of this segment focuses on developing a collaborative partnership with the supplier to establish a win for both businesses.

**Level: B Dur: 1 days Price: \$295**

**Quality Operating System (QOS) [A]**

QOS is the day-to-day management controls designed to measure, manage, and improve the quality of the product, processes, or service. QOS focuses on controlling the (6) M's (Measurement, Material, Machine, Method, Manpower, and Mother Nature) and is necessary to maintaining the quality management system (QMS). In this overview course, the participant will become familiar with tools & techniques, communication, and documentation necessary to control the 6M's to maintain an effective quality operating system. Note: This course is core to both lean, Six Sigma principles and techniques.

**Level: A   Dur: 2 days   Price: \$425**

**Layer Process Audit (LPA) Workshop [B]**

Ongoing system of process checks that verify the proper methods, settings, operators, craftsmanship, error proofing, and other inputs are in place to ensure a defect free product. This workshop will outline the fundamentals of the layer process audit, who should participate, as well as, an example of the key checklist of questions for creating an LPA process that is necessary for maintaining a robust quality management system to sets a path for continuous improvement.

**Level: B   Dur: 1 day   Price: \$295**

**Quality Operating System****Start Up Checklist Workshop [A]**

The start-up checklist is a tool for mistake proofing the production process or "Poka-yoke" as it is termed in lean manufacturing. It is used to remind you of the task needed to be performed before you start the assembly process to ensure the production starts up smoothly and does not suffer any setbacks during the process. This workshop provides guidance for developing a startup checklist to help manage and/or control the (6) M's of variation to maintain an effective quality operating system.

**Level: C   Dur: 2 days   Price: \$425**

**Class Settings**

GSHA classes are offered both remotely (customer or public assembly site) or onsite at our office located at 455 E. Eisenhower Pkwy Suite 300 Ann Arbor MI 48108.

Onsite classes may accommodate a maximum of 25 participants. Tables are arranged for team (4-5 people) interaction. Typical start time is 8 – 8:30am with class end time between 4pm -5pm. Time includes (2) 15 minute breaks and approx. 30 – 45 minute for lunch.

Note: Some online courses are available by request. Additional virtual and face-to-face coaching/consulting is available upon completion of the class to increase the understanding when applying the learning within the work environment.

**Internship and Job Placement**

From time to time, GSHA provides both internship and job opportunities in a manufacturing QC role for the participant in the training program.



## Classes and Workshops

### Quality Management System (QMS) ISO9001 [A]

QMS is a formalized system of the business processes, procedures, and responsibilities necessary for achieving quality policies & objectives to consistently meet customer reqts. ISO9001 is the grandfather or foundation of all the other internationally recognized QMS standards. Typically, mfg. organizations (at large) and some service sectors apply this standard. In this course, participant will gain a detail understanding of the quality management principles of ISO 9001 accredited program.

**Level: A Dur: 3 days Price: \$495**

### QMS\_ISO13485 [B]

The QMS guidelines for medical device manufacturer and related services is ISO 13485 standard. This ISO requirement is focused on developing safe and reliable medical devices and includes reqts for risk mgmt. (i.e. prevent humans from being harmed). Note: Basis is ISO9001; with added reqts unique to the Medical Device community. In this course, participant will gain a detail understanding of the quality management principles of the ISO 9000 accredited program

**Level: B Days: 4 days Price: \$695**

### QMS\_ AS9100C/D [B]

AS9100 is the QMS standard for the Aviation, Space and Defense (AS&D) industry. The standard provides suppliers with [reqts](#) for maintaining a comprehensive quality system for providing safe and reliable products to the ASD industry. Note: AS takes the reqts from ISO9001 and add sector specific requirements. In this course, participant will gain a detail understanding of the quality management principles of the AS9100 accredited program.

**Level: B Dur: 4 days Price: \$695**

### QMS\_ISO/TS16949 [B]

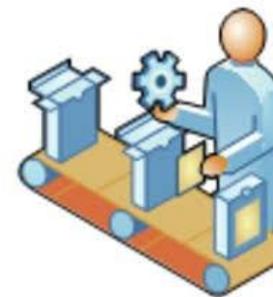
TS 16949 is the technical spec aimed at the development of QMS in the automotive industry, both OEM & the supply chain, provides continual improvement; emphasizing defect prevention and reduction of variation and waste. Note: TS generally takes the requirements from ISO9001 and adds sector specific requirements. In this course, participant will gain a detail understanding of the quality management principles of the TS16949 accredited program.

**Level: B Days: 4 days Price: \$695**

### Lean Learning Academy (LLA) [C]

The Lean learning academy (LLA) is a highly effective technique for changing the culture from mass to a lean thinking organization to help realize sustainable gain. Specifically designed for organizational leadership. This course offers critical skills to help align the organization through tools, rules, and principles to assure both cultural and organizational changes. This course focuses on both the individual and the team leadership skills for learning, applying, reflecting, and demonstrating the change expected of the organization.

**Level: C Dur: 5 day Price: \$895**



**"DOJO"**

*The place where learning begins*



### Lean DOJO Training Workshop [C]

When Japanese martial artist want to deepen their knowledge to learn new techniques, and advance their skills, they gather in a training room called the Dojo. In the lean context, it is the place where basic motion skills are practiced (for standardized work) before new hires can be productive on the manufacturing floor. A Dojo is where employees can take a refresher to practice their art, learn new skills and continuously improve. This workshop walks you through the fundamentals of what is "Dojo" training and how to set up a DoJo training room for value-added training for new, development, and refresher personnel.

**Level: C Dur: 2 days Price: \$425**

## Classes and Workshops

### Error-Proof and Poka-Yoke Workshop [B]

Error-proofing refers to the implementation of fail-safe mechanisms to prevent a process from producing defects. This activity is also known by the Japanese term poka-yoke, which means from poka (inadvertent errors) and yokeru (to avoid) - pronounced POH-kuh YOH-kay. In this course, we will discuss the 3 levels of poka-yoke with "error-proofing" being the highest level of preventing defects from re-occurring.

**Level: B Dur: 2 day Price: \$425**

### Six Sigma Green Belt Certification [A/B]

Six Sigma methodology is an enabler for achieving world-class quality and establishes the foundation for continuous improvements to meet the highest level of customer satisfaction. A certified Lean Six Sigma (LSS) Green Belts analyze and solve quality problems, and are involved with Six Sigma, lean or other quality improvement projects. In this course, the participant will learn the tools and techniques for applying the 5-phase, project-focused method called DMAIC: Define, Measure, Analyze, Improve, and Control.

**Level: A/B Dur: 4 days Price: \$695**

### 8 Discipline (8D) Problem-Solving [A]

The (8D) model is a problem solving approach typically employed by teams to determine the root cause of a concern and develop a corrective action with verification to permanently prevent the issue from re-occurring. The 8D model is a useful approach to drive product and process improvements within companies. In this workshop, participant will understand the difference between the various problem solving tools (8D, A3, EPS, DMAIC), review each of the 8 steps, conduct an 8D gemba (go and see) walk, and complete the process with verification and update of living documents.

**Level: A Dur: 2 days Price: \$425**



#### **Certification Process:**

- 4 Days
- 40 Question Exam
- Certificate
- DMAIC Project
- Certification

### NACE Codes Workshop [C]

NACE code is an acronym of the pan-European classification system that is used to group organizations according to their business activities. This course provides an overview of what is a NACE code, its history, and how to set or apply the NACE code to refer to your business scope.

**Level: C Dur: 1 day Price: \$295**



### Advance Quality Planning (APQP/AQP) [B]

Advance quality planning (AQP) is a framework of procedures and techniques used to develop and successfully deliver new product and commercialization to meet quality, timing, and cost requirements to achieve customer satisfaction/expectation. In this course, the participant will identify and learn how to apply the (5) phases of AQP; 1) Plan and Define Program, 2) Product Design & Development Verification, 3) Process Design & Development Verification, 4) Product & Process Validation, & Production Feedback, and 5) Launch Assessment & Corrective Action.

**Level: B Days: 4 days Price: \$695**

### Policy Deployment Process [C]

Policy Deployment (also called "Hoshin Kanri") is a technique and/or tool in the lean circle that is used for ensuring the strategic goals and objectives of an organization drives progress and actions at every level. Policy deployment eliminates the waste that comes from inconsistent direction and poor communication. This course is a 2-day workshop to establish and translate the company's mission into a visual strategy map to help everyone understand the vision and strategy then align the organization resources to an annual plan (objectives) to implement the strategy.

**Level: C Dur: 2 days Price: \$425**

### Production Part Approval Process (PPAP) [B]

PPAP is a standardized process in the automotive (FAI for aerospace) industry to help manufacturers and suppliers communicate and approve final designs and processes before, during, and after launch. This course provides an overview of the PPAP process governed by the AIAG PPAP manual. PPAP helps ensure the processes used to manufacture parts can consistently reproduce the parts at stated production rates during routine production runs.

**Level: B Days: 4 days Price: \$695**

**Measurement System Analysis (MSA) Workshop [A]**

The Measurement System Analysis (MSA) explores both experimental and mathematical method of determining how much the variation within the measurement process contributes to overall process variability. There are five parameters to investigate in an MSA: bias, linearity, stability, repeatability and reproducibility. In this course, we will focus primarily on the gage repeatability and reproducibility (GRR). This course complements the control plan and it is an integral part of PPAP.

**Level: A Dur: 2 days Price: \$425**

**Control Plan Workshop [B]**

The control plan is a single document or set of documents written to provide a point of reference to the process and product specifications or characteristics to identify the necessary actions needed to maintain control of the product or process variables to ensure capability (around the nominal setting) and stability over time. This approach is direct linkage to the Process Flow Diagram (PFD) and the FMEA and an integral part of PPAP. In this workshop, the participant will learn what a control plan is, the benefits, and the steps for developing a control plan for the business application

**Level: A Dur: 2 days Price: \$425**

**Failure Mode Effect Analysis (FMEA) Workshop [A]**

Failure Mode Effect Analysis (FMEA) is a team oriented, systematic group of qualitative and analytical documented method intended to identify, analyze, and mitigate risk to eliminate or reduce the chance of failures occurring within product and manufacturing process design. The approach compliments the APQP process and is an integral part of PPAP. In this workshop, the participant will learn what is a FMEA, the benefits, and the steps for developing a FMEA for a product or high risk operation.

**Level: A Dur: 3 days Price: \$595**

**Lean Principles [B]**

Lean Solutions is a business system and/or process for identifying those task or activities that are important and transforming those business task or activities so that the business operates more efficiently. It (Lean) is the new way of thinking and acting across the entire enterprise of an organization. Utilizing the lean principles within an organization helps to build worth, called Value, and it (lean principles) minimizes all other task and activities that don't create value, called Waste. This course will define what is lean, the benefits of applying lean principles, and an overview of each lean principle.

**Level: A Dur: 5 days Price: \$895**

**5S Lean Workshop [B]**

5S is defined as a methodology that results in a workplace that is clean, uncluttered, safe, and well organized to help reduce waste and optimize productivity. It's designed to help build a quality work environment, both physically and mentally. The 5S philosophy applies in any work area suited for visual control and lean production. The 5S condition of a work area is critical to employees and it (5S) is the basis of customers' first impressions. In this workshop, the participant will understand what 5S is and how to apply the 5S in the workplace

**Level: B Dur: 3 day Price: \$595**

**Value Stream Mapping Workshop [C]**

Value-stream mapping is a lean-management method for analyzing the current state and designing a future state for the series of events that take a product or service from its beginning through and to the customer with reduced lean wastes as compared to current map. This course helps the individual focus on areas of their business that add value to the product or service and reduce and/or eliminate those activities that are non-value added

**Level: C Dur: 2 day Price: \$425**

**Visual Management Workshop [B]**

Visual management is an important support to lean manufacturing. It is a necessary tool for linking information and control data to the people who needs it. The Visual management techniques learned in this workshop will show individual how to express information in a way that be understood quickly by everyone. Note: Visual management workshop is complementary to the 5S workshop.

**Level: B Dur: 1 day Price: \$295**

**DOWNTIME: 8 Common Types of Waste Workshop [A]**

A core principle in lean methodology is the removal of waste within an operation. And in any business, one of the heaviest drains on profitability is waste. In this course, the participant will learn the 8 common types of waste that negatively influences the value (NVA steps) of the product or service. As well, the participant will learn how to recognize waste in the workplace and develop actions to eliminate waste to optimize process steps, reduce cost and improve its' efficiency to showcase the true value added steps of the operation.

**Level: B Dur: 1 day Price: \$295**