ASQ Certification
The Benefits and The Process

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▪Quality Technician ▪Chief Inspector ▪Quality Control Supervisor	▪Quality Auditor ▪Quality Engineer	▪Senior Quality Engineer ▪Quality Improvement Facilitator	▪Quality Manager ▪Operations Manager	▪Founder ▪Principle Catalyst
Davies Can Company	Sundstrand Aviation	Coors Ceramics	Coors MicroLithics	the quality Catalyst
1976-1989				1989-present

1946 Birth

1966 Vietnam

Sedlock Life Cycle

???? Death

- Adjunct Professor, University of Colorado and University of Florida
- American Society of Quality (ASQ), Past Chairperson, Various Certifications
- Personally studied with Dr. Deming and Dr. Juran
- Handball and Softball Player

ASQ Certification

Benefits
The Certification Process
Collecting Study Material
Do a Self-assessment
How to Study
Q&A

Benefits of ASQ Certification

1. Used for selecting new hires
2. Used for salary advancement
3. Is a transferable credential for any industry
4. Gives credibility to our profession
5. Demonstrates your proficiency as a quality professional

The Certification Process

1. **Is this the right certification for you?**
   Understand the minimum expectations, requirements, experience and the exam specifics.

2. **Prepare for the exam.**
   Review the Body of Knowledge and references. Take advantage of the study guide and sample exams. See what training and books ASQ has to offer.

3. **Choose an exam date.**
   Find the best date and location for you. (Note the application deadlines for each exam date.)

4. **Apply for certification.**
   ASQ offers several ways to apply. Have your documentation and credit card ready to apply online.

5. **Recertify.**
   ASQ requires that you recertify (except CQT) every three years—either by documenting RU credits or by testing.

ASQ Exam Schedule

Certification	Exam Dates	Application Deadline
1. CQT - Quality Technician 2. CRE - Reliability Engineer 3. CMQ/OE – Manager of Quality and Organizational Excellence 4. CSSBB - Six Sigma Black Belt 5. CHA - HACCP Auditor 6. CBA - Biomedical Auditor 7. CMBB - Master Black Belt 8. CQI - Quality Inspector	**Saturday Every March & October**	**Every January and August**
1. CQE - Quality Engineer 2. CQA - Quality Auditor 3. CSQE - Software Quality Eng. 4. CQIA - Q Improvement Associate 5. CCT - Calibration Technician 6. CQPA - Quality Process Analyst 7. CSSGB - Six Sigma Green Belt 8. CPGP - Pharmaceutical GMP Professional	**1st Saturday Every June & December**	**Every April and October**

Body of Knowledge

CQE	CQA	CHA	CMQ/OE
I. Management and Leadership	I. Auditing Fundamentals	I. HACCP System	I. Leadership
II. The Quality System	II. Audit Process	II. HACCP Principles	II. Strategic Plan Development and Deployment
III. Product and Process Design	III. Auditor Competencies	III. Implementation and Maintenance of HACCP System	III. Management Elements and Methods
IV. Product and Process Control	IV. Audit Program and Business Applications	IV. Auditing Fundamentals	IV. Quality Management Tools
V. Continuous Improvement	V. Quality Tools and Techniques	V. Audit Process	V. Customer-Focused Organizations
VI. Quantitative Methods and Tools		VI. Auditor Competencies	VI. Supply Chain Management
		VII. Quality Tools and Techiques	VII. Training and Development

Body of Knowledge

CQT		SSGB		SSBB	
I.	Quality Concepts and Tools	I.	Overview: Six Sigma and the Organization	I.	Enterprise-Wide Deployment
II.	Statistical Techniques	II.	Six Sigma – Define	II.	Organizational Process Management and Measures
III.	Metrology and Calibration	III.	Six Sigma – Measure	III.	Team Management
IV.	Inspection and Test	IV.	Six Sigma – Analyze	IV.	Define
V.	Quality Audits	V.	Six Sigma – Improve and Control	V.	Measure
VI.	Preventive and Corrective Action			VI.	Analyze
				VII.	Improve
				VIII.	Control
				IX.	Design for Six Sigma (DFSS) Frameworks and Methodologies

Six Levels of Knowledge

1. **Knowledge (Remember) Level**
   (Also commonly referred to as recognition, recall, or rote knowledge.) Being able to remember or recognize terminology, definitions, facts, ideas, materials, patterns, sequences, methodologies, principles, etc.
2. **Comprehension (Understand) Level**
   Being able to read and understand descriptions, communications, reports, tables, diagrams, directions, regulations, etc.
3. **Application Level**
   Being able to apply ideas, procedures, methods, formulas, principles, theories, etc. in job-related situations.
4. **Analysis**
   Being able to break down information into its constituent parts, and recognize the parts' relationship to one another and how they are organized; identify sublevel factors or salient data from a complex scenario.
5. **Synthesis**
   Being able to put parts or elements together in such a way as to show a pattern or structure not clearly seen before; identify which data or information from a complex set is appropriate to examine further or from which supported conclusions can be drawn.
6. **Evaluation**
   Being able to make judgments regarding the value of proposed ideas, solutions, methodologies, etc., by using appropriate criteria or standards to estimate accuracy, effectiveness, economic benefits, etc.

Collecting Study Materials

- The Quality Council of Indiana Primer (Primer only, not the extra stuff!)
- ASQ Handbooks (some are better than others)
- A Handheld Calculator

Beware

- There are bad study materials out there.
- No cell phone, laptop or tablet calculators allowed.
- No calculators are allowed with alphabet keys, graphical capability or programmable memory

Exam Specific Issues

CQT -

Need knowledge of various Measurement and Test Equipment (M&TE)

SSGB -

Need to work a Six Sigma Project with the review class

SSBB -

Need an affidavit you were on a Six Sigma Project Team

CQE -

How to use a handheld calculator on statistical problems

CQA -

How to answer Case Study scenarios

CMQ/OE -

How to write a constructive-response (essay questions)

CHA-

Overlap with CQA

Certification Action Plan

Begin Studying at least 3-4 Months Prior to Any Exam

Analyze your self-assessment to the BOK

***Collect study materials including* ASQ example test question**
Visit www.asq.org

Apply for the exam
Deadline is two months prior to the exam

Study Plan:
- ***Expect 60-80 hours of studying.***
- ***Set aside a doable minimum study time commitment***
- ***Study with a partner***
- ***Study with a group***

Q & A

One advantage of 100% inspection over sampling inspection is that 100% inspection

(A) provides more information about quality levels
(B) gives zero defects to the customer
(C) reduces the personal bias of the inspector
(D) requires less machine-operator training

When the term "R & R" is applied to digital calipers, it refers to

(A) removal and replacement
(B) relativity and reproducibility
(C) repeatability and reliability
(D) repeatability and reproducibility

The proper method of placing parts on a surface plate and then removing them is

(A) rotate on and slide off
(B) rotate on and lift off
(C) set on and slide off
(D) set on and lift off

Which of the following methods is used to develop an exhaustive list of ideas about a subject?

(A) Goal-setting
(B) Brainstorming
(C) Benchmarking
(D) Problem-solving

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When lower-tier documents are compared to higher-tier documents before the fieldwork starts, the comparison is called a

(A) desk audit
(B) process audit
(C) conformance audit
(D) management audit

An audit trail is necessary in order to

(A) schedule and budget for audit assignments
(B) show how and when items were reviewed
(C) provide management with justification for an audit
(D) provide the audit manager with audit results

Which of the following audit strategies is a common technique to assess compliance to a specific requirement at all locations where that requirement is applicable?

(A) Discovery method
(B) Element method
(C) Department method
(D) Process method

When is it acceptable to grant an extension of the time frame for a corrective action?

(A) When the auditor cannot perform the follow-up audit as scheduled
(B) When the auditee determines that the proposed corrective action is not cost-effective
(C) When the corrective action plan requires more time than originally anticipated
(D) When there has been a change in operators who perform the task

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(B) a statistical process control sample
(C) a process validation sample
(D) a measurement system correlation sample

Which of the following tools is used extensively in quality function deployment (QFD)?

(A) Affinity diagram
(B) Matrix diagram
(C) Cause and effect diagram
(D) Activity network diagram

Which of the following affects system availability?

(A) FMECA
(B) Maintainability
(C) Reducibility
(D) LTPD

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(A) research from design
(B) management from supervision
(C) planning from execution
(D) engineering from production

In contrast to an expressed warranty, an implied warranty is provided

(A) by the seller
(B) by the distributor
(C) by law
(D) only on request

Which of the following innovations in quality management was developed in the United States?

(A) Quality circles
(B) Company-wide quality control (CWQC)
(C) Quality function deployment (QFD)
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