



Certified Quality Inspector (CQI) Body of Knowledge Map 2018 - 2025

The Certified Quality Inspector (CQI) Body of Knowledge (BoK) has been updated to ensure that the most current state of a quality inspector's practice is being tested in the examination. For more information on how a BoK is updated, a description of the process is available at <https://asq.org/cert/exam-development>.

To determine whether the topics in the 2018 BoK are still relevant to the role of CQIs, and to identify any new topics that have emerged, a comprehensive job analysis survey was conducted with ASQ CQIs. The results indicated most of the topics that were in the 2018 BoK are still relevant to the job roles of CQIs. As displayed in Table 2, one subtopic (IV.E.4) was removed from the 2025 BoK, one subtopic (IV.F.9) was added to the 2025 BoK, and several subtexts were revised.

The 2025 CQI BoK will be introduced in the **May 2025** testing window. Both BoKs will be available online until July 1, 2025, at which time the 2018 BoK will be archived.

General comments about ASQ Body of Knowledge updates

When an ASQ BoK is updated, most of the material covered in the BoK remains the same. There are very few programs that change significantly over a 5-7 year period. A key point made to all the exam development committees is that ASQ Certification exams need to reflect “the state of practice” not “the state of the art.” This approach ensures exams remain relevant to current professional practices, rather than being swayed by momentary trends. When a new BoK is announced, we also include a “BoK Map” that details the changes between the two Bodies of Knowledge, focusing on what has been added or removed.

Specific comments about the 2025 CQI Body of Knowledge updates

The CQI BoK mostly stayed the same with the 2025 update. There were no major changes to content in Section II and Section III. Basic Statistics and Applications (previously topic IV.A) was moved to the end of Section I (I.G). One subtopic (IV.E.9) was added to Section IV. Seven areas increased in level of cognition: I.G.5, II.A.4, II.C.1, II.E.5, II.F.2, II.G, and III.C.1. Twelve areas decreased in level of cognition: II.E.3, II.F.3, III.C.6, III.D.1, IV.D.1, IV.E.1, IV.E.2, IV.E.4, IV.E.5, IV.E.6, IV.E.7, and IV.E.8.

Table 1 portrays the change in the number of examination items allocated to each section of the BoK. The section names have all remained the same, except for Section IV, which is now Quality Assurance and Improvement. Table 2, on page 3, presents the 2025 CQI BoK and maps the topics to the 2018 BoK. Table 3, starting on page 12, presents the 2018 CQI BoK and maps the topics to the 2025 BoK. Details on changes between the two can be found below.

Table 1. CQI BoK Section Item Allocation

BoK Section	2018 BoK	2025 BoK	Difference
I. Technical Mathematics	19	19	0
II. Metrology	26	26	0
III. Inspection and Test	33	32	-1
IV. Quality Assurance and Improvement	22	23	+1

Table 2. 2025 CQI BoK mapped to 2018 CQI BoK

2018 BoK	2025 BoK Details	Notes
Section	I. Technical Mathematics [19 Questions]	
I.A	A. Basic Shop Math Solve basic shop math problems using addition, subtraction, multiplication, division of fractions and decimals, squares, and square roots. Use methods such as truncating and rounding to obtain significant digits for positive and negative numbers. Demonstrate when and how to use percent change calculation (new value – original value / original value x 100). (Apply)	Added “Demonstrate when and how to use percent change calculation (new value – original value / original value x 100).”
I.B	B. Basic Algebra Solve or simplify first-degree and single-variable equations. (Apply)	
I.C	C. Basic Geometry Calculate general parameters for basic geometric shapes, such as area, circumference, diameter, radius, perimeter, and volume. Calculate complementary and supplementary angles. Select the minimum number of coordinate points for shapes (e.g., lines and circles). (Apply)	Added “diameter”, “radius”, and “Select the minimum number of coordinate points for shapes (e.g., lines and circles).”
I.D	D. Basic Trigonometry Solve for angles and lengths using trigonometric functions, such as sine, cosine, tangent, and the Pythagorean Theorem. (Apply)	
I.E	E. Measurement Systems Convert units within and between English and metric measurement systems (SI), such as inch to micro-inch and meter to millimeter. (Apply)	Removed “liter to quart”
I.F	F. Numeric Conversions Use various numbering methods, such as scientific notation, decimals, and fractions, and convert values between these methods. (Apply)	
	G. Basic Statistics and Applications	Moved topic from section IV to section I
IV.A.1	1. Measures of central tendency Calculate mean, median, and mode. (Apply)	
IV.A.2	2. Measures of dispersion Calculate range, standard deviation, and variance. (Apply)	

2018 BoK	2025 BoK Details	Notes
IV.A.3	3. Measures of proportion Calculate percentage and ratio measures for various data sets. (Apply)	
IV.A.4	4. Graphical displays Define, interpret, and use scatter diagrams, tally sheets, and bar charts to effectively display data in various situations. (Apply)	
IV.A.5	5. Normal distribution Explain various characteristics of a normal distribution, such as symmetry, bell curve, and central tendency. (Apply)	Increased cognitive level from Understand to Apply
II. Metrology [26 Questions]		
A. Common Gauges and Measurement Instruments		
II.A.1	1. Variable gauges Identify and use variable gauges, such as micrometers, calipers, dial indicators, and Coordinate Measuring Machines (CMMs). Understand linear scales, such as steel rule and gauge blocks. Use borescopes, thermometers, and temperature probes. (Apply)	
II.A.2	2. Attribute gauges Identify and use attribute gauges, such as thread plugs, progressive gauges, ring gauges, flush pins, pin gauges, and radius gauges. (Apply)	Revised subtext for clarification
II.A.3	3. Transfer gauges Identify and use transfer gauges, such as small-hole gauges, telescoping gauges, and spring calipers. (Apply)	
II.A.4	4. Measurement scales Identify and use measurement scales, such as dial, digital, and vernier scales. (Apply)	Increased cognitive level from Remember to Apply
B. Special Gauges and Applications Identify and describe the following tools and components. (Remember)		
II.B.1	1. Electronic gauging tools: oscilloscopes and multimeters	Removed “pyrometers”
II.B.2	2. Automatic gauging components: machine vision, ultrasonic, X-ray, and laser	
II.B.3	3. Pneumatic gauging components: probes and rings	Removed “air columns”
II.B.4	4. Force gauging: torque wrenches and load cells	Added “load cells”
II.B.5	5. Environment instrumentation: chart recorders and data loggers	Removed “hygrometers”
C. Gauge Selection, Handling, and Use		
II.C.1	1. 10:1 rule	Increased cognitive level from Understand to Apply

2018 BoK	2025 BoK Details	Notes
	Apply the 10:1 rule: inspection measurements require better than the tolerance of a dimension by a factor of 10, and calibration standards require better than the inspection measurements by a factor of 10. (Apply)	
II.C.2	2. Gauge selection Select gauges according to the feature or characteristic to be measured, the applicable tolerance, and the accuracy, environment, resolution, and capability of the test instrument. Determine whether the type of measurement should be direct, differential, or transfer. (Apply)	
II.C.3	3. Gauge handling, preservation, and storage Identify and apply various methods of cleaning, handling, and storing gauges. (Apply)	
II.C.4	4. Gauge correlation Identify and apply methods for establishing the correlation between measurement instruments, such as gauge-to-gauge or manual-to-automated process. (Apply)	
D. Surface Plate Tools and Techniques		
II.D.1	1. Surface plate equipment Select and use height gauges, V-blocks, and other indicators to measure various types of features. Understand the care, cleaning, calibration, and lapping of a surface plate. (Apply)	
II.D.2	2. Angle measurement instruments Identify and use protractors, sine bars, and angle blocks. (Apply)	
E. Specialized Inspection Equipment		
II.E.1	1. Measuring mass Describe and apply weights, balances, and scales. (Apply)	
II.E.2	2. Measuring finish Describe and apply profilometers (e.g., optical and stylus). (Apply)	Added “(e.g., optical and stylus)” Removed “fingernail comparators”
II.E.3	3. Measuring shape and profile Understand and describe mechanical comparators, roundness testers, precision spindles, and profile tracers. (Understand)	Decreased cognitive level from Apply to Understand
II.E.4	4. Optical equipment Describe and apply optical comparators and microscopes. (Apply)	Removed “optical flats”

2018 BoK	2025 BoK Details	Notes
II.E.5	<p>5. Software-based measurement systems Define and use digital cameras, vision inspection systems (white light / blue light), and other digital systems for product inspection. Recognize software limitations with regard to locating functional datums, target points and areas, hole positions, and the basic operation of the x, y, and z axes. (Apply)</p>	<p>Removed “in-line optical sensors” and “articulating arms, laser trackers, and contracers”</p> <p>Increased cognitive level from Understand to Apply</p>
II.E.6	<p>6. Measuring inclination Define and describe the measurement of the slope or slant of various equipment (mechanical / laser). (Understand)</p>	
F. Calibration		
II.F.1	<p>1. Calibration systems Describe the principles and purpose of a calibration system, including the importance of establishing calibration intervals and uncertainty. Identify and use basic tracking and identification methods, such as logs, stickers, radio frequency identifications (RFID), barcodes, and other identification codes to control calibration equipment. (Apply)</p>	
II.F.2	<p>2. Calibration standards and equipment traceability Understand and describe the hierarchy of standards, from working standards through international standards, and the documentation process of a measurement device traceable to the international standards. Recognize measurement results before and after an adjustment or repair is made. (Understand)</p>	<p>Added “Recognize measurement results before and after an adjustment or repair is made.”</p> <p>Increased cognitive level from Remember to Understand</p>
II.F.3	<p>3. Gauge calibration environment Understand the effects that environmental conditions have on the calibration process, such as temperature, humidity, vibration, and cleanliness of the gauge. (Understand)</p>	<p>Decreased cognitive level from Apply to Understand</p>
II.F.4	<p>4. Out-of-calibration effects Describe the effects that out-of-calibration instruments can have on product acceptance and the actions to take in response to this situation. (Apply)</p>	
G. Measurement System Analysis (MSA)		
Define and understand the following elements of MSA. (Understand)		
II.G.1	1. Bias	
II.G.2	2. Stability	
II.G.3	3. Precision	

2018 BoK	2025 BoK Details	Notes
II.G.4	4. Accuracy	
II.G.5	5. Linearity	
II.G.6	6. Repeatability and reproducibility (R&R) studies	
	III. Inspection and Test [32 Questions]	Number of questions decreased from 33 to 32
	A. Blueprints, Drawings, Geometric Dimensioning & Tolerancing (GD&T), and Model Based Definitions	
III.A.1	1. Blueprints, engineering drawings, and model based definitions Define and interpret various sections of technical drawings, such as title blocks, tolerances, and change or revision blocks, as well as notes, scale, and size details. Use this information to conduct inspections. (Apply)	Added “Use this information to conduct inspections.”
III.A.2	2. Terminology and symbols Define and interpret drawing views and details for product specifications or other controlling documents. Define and use various terms and symbols from the ASME Y14.5 Standard. (Analyze)	Updated ASME Y14.5 Standard
III.A.3	3. Position and bonus tolerances Calculate position and bonus tolerances from various drawings. (Analyze)	
III.A.4	4. Part alignment and datum structure Determine part alignment and setup using the datum structure. (Analyze)	
	B. Sampling Define and utilize the following concepts related to sampling. (Apply)	
III.B.1	1. Acceptance quality limit (AQL)	
III.B.2	2. Random sampling	
III.B.3	3. Lot and sample size	
III.B.4	4. Acceptance number	
III.B.5	5. Sampling plans	
	C. Inspection Planning and Processes	
III.C.1	1. Inspection types Define and distinguish between inspection types, such as incoming material, first-article (first-piece), in-process, and final. (Analyze)	Increased cognitive level from Apply to Analyze
III.C.2	2. Inspection errors	Added “and their sources” and “setup and cosine error when using indicators”

2018 BoK	2025 BoK Details	Notes
	Identify potential inspection errors and their sources, such as bias, fatigue, flinching, distraction, poor time management, setup, and cosine error when using indicators. (Apply)	
III.C.3	3. Product traceability Identify methods to trace products and materials, such as age control, shelf life, first-in first-out (FIFO), barcoding, date codes, and lot and part numbering. (Apply)	
III.C.4	4. Identification of nonconforming material Describe and apply various methods of identifying nonconforming material, such as tagging, labeling, and segregating. (Apply)	
III.C.5	5. Levels of severity Define and describe levels of severity (i.e., critical, major, and minor) and apply them to product features and defects. (Apply)	
III.C.6	6. Disposition of nonconforming material Describe disposition methods, such as rework, reprocess, reinspect, scrap, and customer waiver as determined by a material review board (MRB) or other authority. (Understand)	Decreased cognitive level from Apply to Understand
	D. Testing Methods Define and use the following methods in various situations.	Removed cognitive level from topic
III.D.1	1. Nondestructive testing: X-ray, eddy current, ultrasonic, dye penetrant, magnetic particle, optical, visual, and profile (Understand)	Decreased cognitive level from Apply to Understand
III.D.2	2. Destructive testing: tensile, force testing, and drop test (Apply)	
III.D.3	3. Functionality testing: tension, torque, leak testing, and compression (Apply)	
III.D.4	4. Hardness testing: Brinell, Rockwell, durometer, and micro-hardness scales (Apply)	
III.E	E. Software for test equipment Identify and describe basic tools (e.g., safeguarding, functional checks, comparison of test results, and identification of attributes and parameters) used to ensure that the software for test equipment adequately and correctly performs its intended functions. Recognize various software validation methods. (Remember)	Added “Recognize various software validation methods.”
	IV. Quality Assurance and Improvement [23 Questions]	Section title updated to “Quality Assurance and Improvement” Number of questions increased from 22 to 23

2018 BoK	2025 BoK Details	Notes
	A. Quality Improvement	
IV.C.1	1. Terms and concepts Define basic quality improvement concepts, such as defect detection and prevention, the cost of poor quality, total quality management (TQM), and the importance of customer satisfaction. (Understand)	
IV.C.2	2. Products and processes Define and distinguish between products and processes. Describe the interrelationships of product design, materials used, manufacturing processes, and final output, and how individual steps in a process can affect the final product or the system as a whole. (Understand)	
	B. Quality Audits	
IV.D.1	1. Types of audits Define and describe various types of audits, such as internal, external, system, product, and process. (Understand)	
IV.D.2	2. Audit process Explain various stages of the audit process (planning, performance, and closure), such as audit scope and purpose, resources needed, audit schedule, opening meeting, interviewing, data gathering, document and record review, analysis of results, closing meeting, audit documentation (reporting), recordkeeping, and verification of corrective actions. (Understand)	
IV.D.3	3. Audit tools Define and describe the purpose of checklists, log sheets, sampling plans, record reviews, document reviews, and forward-and backward-tracing. (Understand)	
IV.D.4	4. Communication tools and techniques Define and describe the use of graphs, charts, diagrams, and other aids for written and oral presentations, including interview techniques and listening skills. (Understand)	
IV.D.5	5. Corrective action requests (CARs) Describe how CARs from audits can support quality improvement. (Understand)	
	C. Quality Tools and Techniques Apply the following quality tools and techniques. (Apply)	
IV.E.1	1. Pareto charts	
IV.E.2	2. Cause and effect diagrams	
IV.E.3	3. Flowcharts	

2018 BoK	2025 BoK Details	Notes
IV.E.5	4. Check sheets	
IV.E.6	5. Scatter diagrams	
IV.E.7	6. Histograms	
D. Statistical Process Control (SPC)		
IV.B.1	1. Common and special cause variation Explain the difference between these causes of variation. Illustrate whether a process is in statistical control by monitoring data patterns (e.g., runs, trends, and hugging), and identify what actions should be taken in response. (Apply)	Decreased cognitive level from Evaluate to Apply
IV.B.2	2. Control limits and specification limits Define, describe, and illustrate the differences between these limits as used in SPC. (Apply)	
IV.B.3	3. Variables charts Identify characteristics of and apply $\bar{X} - R$ and $\bar{X} - s$ charts. (Apply)	
IV.B.4	4. Attributes charts Identify characteristics of and apply p, np, c, and u charts. (Apply)	
IV.B.5	5. Process capability analysis Define and describe the differences between C_p , C_{pk} , P_p , and P_{pk} studies, and identify their application to various types of data. (Understand)	
E. Problem-solving Tools and Continuous Improvement Techniques Define and describe the following tools and techniques in various situations.		
IV.F.1	1. Plan-do-check-act (PDCA) or plan-do-study-act (PDSA) cycles (Understand)	Decreased cognitive level from Apply to Understand
IV.F.2	2. Lean tools for eliminating waste (e.g., error-proofing and value-stream mapping) and lean concepts (e.g., kaizen, flow, and pull) (Understand)	Relocated “5S” to IV.E.3 Decreased cognitive level from Apply to Understand
IV.F.2	3. 5S / 6S (Apply)	Added “6S”
IV.F.3	4. Six sigma phases: define, measure, analyze, improve, control (DMAIC) (Understand)	Decreased cognitive level from Apply to Understand
IV.F.4	5. Failure mode and effects analysis (FMEA) (Understand)	Decreased cognitive level from Apply to Understand
IV.F.5	6. 8D Methodology (Understand)	Decreased cognitive level from Apply to Understand

2018 BoK	2025 BoK Details	Notes
IV.F.6	7. 5 Whys (Understand)	Decreased cognitive level from Apply to Understand
IV.F.7	8. Fault tree analysis (Understand)	Decreased cognitive level from Apply to Understand
NEW	9. Corrective and preventive action (CAPA) (Understand)	NEW
	F. Resources	
IV.G.1	1. Environmental and safety support Define and use various resources related to personal and environmental safety, such as safety data sheets (SDS), material data sheets (MDS), and personal protective equipment (PPE). (Apply)	
IV.G.2	2. Reference documents Identify and use national and international standards (e.g., ISO, ANSI, ASTM, QS, and NIST) and customer requirements as authorities that support processes and procedures used to assure quality products. (Apply)	Added “NIST”
IV.G.3	3. Employees as resources Describe how employees can be empowered and the value they add to project teams or quality improvement teams. Describe typical team roles and responsibilities, such as facilitator, ground rules, and project or team charter. Describe the stages of team development: forming, storming, norming, performing, and adjourning. (Remember)	Added “adjourning”
IV.G.4	4. Quality documentation Identify and apply basic quality documentation, including the correct form / revision for the process (e.g., ISO 9001, First Article Inspection Report, ISIR, PPAPs). Demonstrate proper usage of policy, procedure, work instructions, and forms, and proper documentation practices, such as document control, filling out forms completely, correcting misspellings, and initialing changes. (Apply)	

Table 3. 2018 CQI BoK mapped to the 2025 CQI BoK

2018 BoK		2025 BoK		Notes
Code	Label	Code	Label	
I. Technical Mathematics				
I.A	Basic Shop Math	I.A	Basic Shop Math	Added “Demonstrate when and how to use percent change calculation (new value – original value / original value x 100).”
I.B	Basic Algebra	I.B	Basic Algebra	
I.C	Basic Geometry	I.C	Basic Geometry	Added “diameter”, “radius”, and “Select the minimum number of coordinate points for shapes (e.g., lines and circles).”
I.D	Basic Trigonometry	I.D	Basic Trigonometry	
I.E	Measurement Systems	I.E	Measurement Systems	Removed “liter to quart”
I.F	Numeric Conversions	I.F	Numeric Conversions	
IV.A.1	Measures of central tendency	I.G.1	Measures of central tendency	
IV.A.2	Measures of dispersion	I.G.2	Measures of dispersion	
IV.A.3	Measures of proportion	I.G.3	Measures of proportion	
IV.A.4	Graphical displays	I.G.4	Graphical displays	
IV.A.5	Normal distribution	I.G.5	Normal distribution	Increased cognitive level from Understand to Apply
II. Metrology				
II.A.1	Variable gauges	II.A.1	Variable gauges	
II.A.2	Attribute gauges	II.A.2	Attribute gauges	
II.A.3	Transfer gauges	II.A.3	Transfer gauges	
II.A.4	Measurement scales	II.A.4	Measurement scales	Increased cognitive level from Remember to Apply

2018 BoK		2025 BoK		Notes
Code	Label	Code	Label	
II.B.1	Electronic gauging tools: oscilloscopes, multimeters, and pyrometers.	II.B.1	Electronic gauging tools: oscilloscopes and multimeters	Removed “pyrometers”
II.B.2	Automatic gauging components: machine vision, ultrasonic, X-ray, and laser.	II.B.2	Automatic gauging components: machine vision, ultrasonic, X-ray, and laser	
II.B.3	Pneumatic gauging components: air columns, probes, and rings.	II.B.3	Pneumatic gauging components: probes and rings	Removed “air columns”
II.B.4	Force gauging: torque wrenches.	II.B.4	Force gauging: torque wrenches and load cells	Added “load cells”
II.B.5	Environment instrumentation: hygrometers, chart recorders, and data loggers.	II.B.5	Environment instrumentation: chart recorders and data loggers	Removed “hygrometers”
II.C.1	10:1 rule	II.C.1	10:1 rule	Increased cognitive level from Understand to Apply
II.C.2	Gauge selection	II.C.2	Gauge selection	
II.C.3	Gauge handling, preservation, and storage	II.C.3	Gauge handling, preservation, and storage	
II.C.4	Gauge correlation	II.C.4	Gauge correlation	
II.D.1	Surface plate equipment	II.D.1	Surface plate equipment	
II.D.2	Angle measurement instruments	II.D.2	Angle measurement instruments	
II.E.1	Measuring mass	II.E.1	Measuring mass	
II.E.2	Measuring finish	II.E.2	Measuring finish	Added “(e.g., optical and stylus)” Removed “fingernail comparators”
II.E.3	Measuring shape and profile	II.E.3	Measuring shape and profile	Decreased cognitive level from Apply to Understand
II.E.4	Optical equipment	II.E.4	Optical equipment	Removed “optical flats”

2018 BoK		2025 BoK		Notes
Code	Label	Code	Label	
II.E.5	Software-based measurement systems	II.E.5	Software-based measurement systems	Removed “in-line optical sensors” and “articulating arms, laser trackers, and contracers” Increased cognitive level from Understand to Apply
II.E.6	Measuring inclination	II.E.6	Measuring inclination	
II.F.1	Calibration systems	II.F.1	Calibration systems	
II.F.2	Calibration standards and equipment traceability	II.F.2	Calibration standards and equipment traceability	Added “Recognize measurement results before and after an adjustment or repair is made.” Increased cognitive level from Remember to Understand
II.F.3	Gauge calibration environment	II.F.3	Gauge calibration environment	Decreased cognitive level from Apply to Understand
II.F.4	Out-of-calibration effects	II.F.4	Out-of-calibration effects	
II.G.1	Bias	II.G.1	Bias	
II.G.2	Stability	II.G.2	Stability	
II.G.3	Precision	II.G.3	Precision	
II.G.4	Accuracy	II.G.4	Accuracy	
II.G.5	Linearity	II.G.5	Linearity	
II.G.6	Repeatability and reproducibility (R&R) studies	II.G.6	Repeatability and reproducibility (R&R) studies	
III. Inspection and Test				

2018 BoK		2025 BoK		Notes
Code	Label	Code	Label	
III.A.1	Blueprints, Drawings, Geometric Dimensioning, Tolerancing (GD&T) & Model Based Definitions	III.A.1	Blueprints, Drawings, Geometric Dimensioning & Tolerancing (GD&T), and Model Based Definitions	Added “Use this information to conduct inspections.”
III.A.2	Terminology and symbols	III.A.2	Terminology and symbols	Updated ASME Y14.5 Standard.
III.A.3	Position and bonus tolerances	III.A.3	Position and bonus tolerances	
III.A.4	Part alignment and datum structure	III.A.4	Part alignment and datum structure	
III.B.1	Acceptance quality limit (AQL)	III.B.1	Acceptance quality limit (AQL)	
III.B.2	Random sampling	III.B.2	Random sampling	
III.B.3	Lot and sample size	III.B.3	Lot and sample size	
III.B.4	Acceptance number	III.B.4	Acceptance number	
III.B.5	Sampling plans	III.B.5	Sampling plans	
III.C.1	Inspection types	III.C.1	Inspection types	Increased cognitive level from Apply to Analyze
III.C.2	Inspection errors	III.C.2	Inspection errors	Added “and their sources” and “setup and cosine error when using indicators”
III.C.3	Product traceability	III.C.3	Product traceability	
III.C.4	Identification of nonconforming material	III.C.4	Identification of nonconforming material	
III.C.5	Level of severity	III.C.5	Levels of severity	
III.C.6	Disposition of nonconforming material	III.C.6	Disposition of nonconforming material	Decreased cognitive level from Apply to Understand
III.D.1	Nondestructive testing: X-ray, eddy current, ultrasonic, dye penetrant, magnetic particle, optical, visual, and profile.	III.D.1	Nondestructive testing: X-ray, eddy current, ultrasonic, dye penetrant, magnetic particle, optical, visual, and profile (Understand)	Decreased cognitive level from Apply to Understand

2018 BoK		2025 BoK		Notes
Code	Label	Code	Label	
III.D.2	Destructive testing: tensile, force testing, and drop test.	III.D.2	Destructive testing: tensile, force testing, and drop test (Apply)	
III.D.3	Functionality testing: tension, torque, leak testing, and compression.	III.D.3	Functionality testing: tension, torque, leak testing, and compression (Apply)	
III.D.4	Hardness testing: Brinell, Rockwell, durometer, and micro-hardness scales.	III.D.4	Hardness testing: Brinell, Rockwell, durometer, and micro-hardness scales (Apply)	
III.E	Software for test equipment	III.E	Software for test equipment	Added “Recognize various software validation methods.”
IV. Quality Assurance and Improvement				
IV.C.1	Terms and concepts	IV.A.1	Terms and concepts	
IV.C.2	Products and processes	IV.A.2	Products and processes	
IV.D.1	Types of audits	IV.B.1	Types of audits	
IV.D.2	Audit process	IV.B.2	Audit process	
IV.D.3	Audit tools	IV.B.3	Audit tools	
IV.D.4	Communication tools and techniques	IV.B.4	Communication tools and techniques	
IV.D.5	Corrective action requests (CARs)	IV.B.5	Corrective action requests (CARs)	
IV.E.1	Pareto charts	IV.C.1	Pareto charts	
IV.E.2	Cause and effect diagrams	IV.C.2	Cause and effect diagrams	
IV.E.3	Flowcharts	IV.C.3	Flowcharts	
IV.E.4	Control charts	—	—	Removed from 2025 BoK
IV.E.5	Check sheets	IV.C.4	Check sheets	
IV.E.6	Scatter diagrams	IV.C.5	Scatter diagrams	
IV.E.7	Histograms	IV.C.6	Histograms	

2018 BoK		2025 BoK		Notes
Code	Label	Code	Label	
IV.B.1	Common and special cause variation	IV.D.1	Common and special cause variation	Decreased cognitive level from Evaluate to Apply
IV.B.2	Control limits and specification limits	IV.D.2	Control limits and specification limits	
IV.B.3	Variables charts	IV.D.3	Variables charts	
IV.B.4	Attributes charts	IV.D.4	Attributes charts	
IV.B.5	Process capability analysis	IV.D.5	Process capability analysis	
IV.F.1	Plan-do-check-act (PDCA) or plan-do-study-act (PDSA) cycles	IV.E.1	Plan-do-check-act (PDCA) or plan-do-study-act (PDSA) cycles (Understand)	Decreased cognitive level from Apply to Understand
IV.F.2	Lean tools for eliminating waste: 5S, error-proofing, value-stream mapping; and lean concepts: kaizen, flow, pull	IV.E.2	Lean tools for eliminating waste (e.g., error-proofing and value-stream mapping) and lean concepts (e.g., kaizen, flow, and pull) (Understand)	Relocated “5S” to IV.E.3 Decreased cognitive level from Apply to Understand
--	--	IV.E.3	5S / 6S (Apply)	Added “6S”
IV.F.3	Six sigma phases: define, measure, analyze, improve, control (DMAIC)	IV.E.4	Six sigma phases: define, measure, analyze, improve, control (DMAIC) (Understand)	Decreased cognitive level from Apply to Understand
IV.F.4	Failure mode and effects analysis (FMEA)	IV.E.5	Failure mode and effects analysis (FMEA) (Understand)	Decreased cognitive level from Apply to Understand
IV.F.5	8D Methodology	IV.E.6	8D Methodology (Understand)	Decreased cognitive level from Apply to Understand
IV.F.6	5 Whys	IV.E.7	5 Whys (Understand)	Decreased cognitive level from Apply to Understand
IV.F.7	Fault Tree Analysis	IV.E.8	Fault tree analysis (Understand)	Decreased cognitive level from Apply to Understand
—	—	IV.E.9	Corrective and preventive action (CAPA) (Understand)	NEW
IV.G.1	Environmental and safety support	IV.F.1	Environmental and safety support	
IV.G.2	Reference documents	IV.F.2	Reference documents	Added “NIST”

2018 BoK		2025 BoK		Notes
Code	Label	Code	Label	
IV.G.3	Employees as resources	IV.F.3	Employees as resources	Added “adjourning”
IV.G.4	Quality documentation	IV.F.4	Quality documentation	