CERTIFIED QUALITY AUDITOR (CQA)
BODY OF KNOWLEDGE MAP 2019

The Certified Quality Auditor (CQA) Body of Knowledge (BoK) has been updated to ensure that the most current state of quality auditor practice is being tested in the examination. If you would like more information on how a BoK is updated, see a description of the process on http://asq.org/cert/faq/create-body-of-knowledge.

Part of the updating process is to conduct a job analysis survey to determine whether the topics in the 2012 BoK are still relevant to the job role of quality auditors and to identify any new topics that have emerged since that BoK was developed. The results of the CQA job analysis survey showed that all of the topics except one that were in the 2012 BoK are still relevant to the job roles of quality auditors. Three new areas were added to the 2019 BoK, one area was removed, and parts of subtext were edited with small additions, removals, and clarifications.

The 2019 Certified Quality Auditor Body of Knowledge (CQA BoK) will be introduced at the **June 2019** administration. Both BoKs will be available online until August 1, 2019, at which time the 2012 BoK will be removed.

General comments about ASQ Body of Knowledge updates
When the Body of Knowledge (BoK) is updated for an ASQ exam, 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. One of the points that we make 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 helps to keep the programs grounded in what people currently do, rather than being driven by the latest hot-topic improvement idea or trend. Typically, the biggest change in any updated BoK is in how the content is organized. When a new BoK is announced and posted on the ASQ website, we also include a "BoK Map" that highlights the changes between the two Bodies of Knowledge: old and new. The BoK map also clearly identifies any new content that has been added to the exam, as well as any content that has been removed from the exam.

With regard to exam preparation materials, you should be able to use any of the reference books that are currently listed on the reference list for the exam program. These are the source materials that the exam development committees use to write questions and verify answers.

Specific comments about the 2019 CQA Body of Knowledge updates
The CQA Body of Knowledge mostly stayed the same with the 2019 update. The primary changes include: adding audit plan and on-site management to area II, adding electronic records and computerized system considerations to area IV, and the removal of emerging roles of the auditor from area IV. Two subtopic names were updated for II.A.3 and II.B.1 with additional subtext added to II.A.3. There was one topic that received a decrease in cognitive level (IV.A.3) from create to analyze.

Table 1 below portrays the change in items allocated to each section of the Body of Knowledge. The section names have remained the same. Table 2 on Page 3 presents the 2019 CQA BoK and maps the topics to the 2012 BoK, and Table 3 starting on Page 13 presents the 2012 CQA BoK and maps the topics to the 2019 BoK. Details on changes between the two can be found below.

Table 1. BoK Section Item Allocation

BoK Sections	2012 BoK	2019 BoK	Change
I. Auditing Fundamentals	27	28	+1
II. Audit Process	42	44	+2
III. Auditor Competencies	25	24	-1
IV. Auditor Program Management and Business Applications	30	30	0
V. Quality Tools and Techniques	26	24	-2

Table 2. 2019 CQA BoK mapped to the 2012 CQA BoK

2012 BoK Code	2019 BoK Details	Notes
	I. Auditing Fundamentals [28 Questions]	**Number of questions changed from 27 to 28**
	A. Types of quality audits	
I.A.1	**1. Method** Define, differentiate, and analyze various audit types by method: product, service, process, desk, department, function, element, system, management, and integrated (combined and joint). (Analyze)	Added service and integrated (combined and joint)
I.A.2	**2. Auditor-auditee relationship** Define, differentiate, and analyze various audit types by auditor-auditee relationship: first-party, second-party, third-party, internal and external. (Analyze)	
I.A.3	**3. Purpose** Define, differentiate, and analyze various audit types by purpose: verification of corrective and preventive action (CAPA), risk based, accreditation (registration), compliance, surveillance, and for-cause. (Analyze)	Added preventive action (CAPA)
I.A.4	**4. Common elements with other audits** Identify elements such as audit purpose, data gathering techniques, and tracing, that quality audits have in common with environmental, safety, financial, and other types of audits. (Apply)	
	B. Purpose and scope of audits	
I.B.1	**1. Elements of purpose and scope** Describe and determine how the purpose of an audit can affect its scope. (Apply)	
I.B.2	**2. Benefits of audits** Analyze how audits can be used to provide an independent assessment of system effectiveness and efficiency, financial risks, cybersecurity risks, and other organizational measures. (Analyze)	Changed bottom line to financial risks and added cybersecurity risks
I.C	**C. Criterial to audit against** Define and distinguish between various audit criteria, such as external (industry, national, international) standards, contracts, specifications, quality awards, policies, internal quality management system (QMS), sustainability, and social responsibility. (Analyze)	
I.D	**D. Roles and responsibilities of audit participants** Define and describe the functions and responsibilities of various audit participants, including audit team members, lead auditor, client, auditee, etc. (Apply)	

2012 BoK Code	2019 BoK Details	Notes
	E. Professional conduct and consequences for auditors	
I.E.1	**1. Professional conduct and responsibilities** Define and apply the ASQ Code of Ethics, concepts of due diligence and due care with respect to confidentiality and conflict of interest, and appropriate actions in response to the discovery of illegal activities or unsafe conditions. (Apply)	Changed Code of Conduct to Code of Ethics
I.E.2	**2. Legal consequences** Identify potential legal and financial ramifications of improper auditor actions (carelessness, negligence, etc.) in various situations, and anticipate the effect that certain audit results can have on an auditee's liability. (Apply)	
I.E.3	**3. Audit credibility** Identify and apply various factors that influence audit credibility such as auditor independence, objectivity, and qualification. (Apply)	
II. Audit Process [44 Questions]		Number of questions changed from 42 to 44
	A. Audit preparation and planning	
II.A.1	**1. Elements of the audit planning process** Evaluate and implement the basic steps in audit preparation and planning: verify audit authority; determine the purpose, scope, and type of audit; identify the criteria to audit against such as, customer specific requirements, applicable standards and regulations (laws), and identify the necessary resources, including, the size and number of audit teams, and documentation requirements. (Evaluate)	Added examples of criteria to audit against including customer requirements, applicable standards and regulations (laws) and documentation requirements
II.A.2	**2. Auditor selection** Identify and examine various auditor selection criteria, such as education, experience, industry background, subject-matter or technical expertise, and independence from the activity being audited. (Analyze)	Added auditor independence
II.A.3	**3. Audit-related documentation and considerations** Identify the sources of pre-audit information and examine audit-related documentation, such as audit criteria references and results from prior audits. Recognize situations where evaluation of data integrity, electronic documents and records, and/or use and control of computerized systems (cybersecurity) is appropriate to include in the audit. (Analyze)	Updated subtopic name. Added data integrity, electronic documents and records, and control of computerized systems (cybersecurity)

2012 BoK Code	2019 BoK Details	Notes
II.A.4	**4. Logistics** Identify and organize audit-related logistics including travel, safety and security considerations, the need for escorts, translators, confidentiality agreements, clear right of access, and facility accommodations such as internet access, printers, work space, and personal protective equipment (PPE). (Analyze)	Added more examples of facility accommodations: internet access, printers, work space, and PPE
II.A.5	**5. Auditing tools and working papers** Identify the sampling plan or method and procedural guidelines to be used for the specific audit. Select and prepare working papers (checklists, log sheets, and forms) to document the audit and the method of documentation (manual or electronic). (Create)	Added method of documentation (manual and electronic)
II.A.6	**6. Auditing strategies** Identify and use various tactical methods for conducting an audit, such as forward and backward tracing, discovery, etc. (Apply)	
NEW	**7. Audit plan** Create an audit plan using information obtained during the audit planning process, provide plan to the client and/or auditee, and distribute the plan to defined stakeholders. (Create)	New topic to the BoK
B. Audit performance		
II.B.1	**1. On-site audit management for the auditor** Interpret situations throughout the performance of the audit to determine whether time is being managed well and when changes need to be made, such as revising planned audit team activities, reallocating resources, adjusting the audit plan, and communicating audit status and potential findings and observations to the auditee on a timely basis. (Analyze)	Updated subtopic name. Clarified what is communicated to the auditee
NEW	**2. On-site audit management for the auditee** Identify and apply techniques for managing and facilitating the audit process on behalf of the auditee organization such as, serving as liaison between auditee management and the auditing organization, accompanying the auditor through the data-collection portion of the audit, providing clarifying information, and confirming or denying the existence of observations, nonconformities, and findings. (Analyze)	New topic to the BoK
II.B.2	**3. Opening meeting** Manage the opening meeting of an audit by identifying the audit's purpose and scope, describing any scoring or rating criteria that will be used during the audit, creating a record of the attendees, reviewing the audit schedule, and answering questions as needed. (Apply)	

2012 BoK Code	2019 BoK Details	Notes
II.B.3	**4. Audit data collection and analysis** Use various data collection methods to capture information: conducting interviews, observing work activities, taking physical measurements, and examining documents. Evaluate the results to determine their importance for providing audit evidence. (Evaluate)	
II.B.4	**5. Establishment of objective evidence** Identify and differentiate characteristics of objective evidence, such as observed, measured, confirmed or corroborated, and documented. (Analyze)	
II.B.5	**6. Organization of objective evidence** Classify evidence in terms of significance, severity, frequency, and level of risk. Evaluate the evidence for its potential impact on product, process, system, and cost of quality, and determine whether additional investigation is required to meet the scope of the audit. (Evaluate)	
II.B.6	**7. Exit and closing meeting** Formally manage these meetings: reiterate the audit's purpose, scope, and scoring or rating criteria, and create a record of the attendees. Present the audit results and obtain concurrence on evidence that could lead to an adverse conclusion. Discuss the next steps in the process (follow-up audit, additional evidence-gathering), and clarify who is responsible for performing those steps. (Apply)	
	C. Audit reporting	
II.C.1	**1. Report development and content** Group observations into actionable findings of significance, and identify the severity and risk to the client and the auditee. Use appropriate steps to generate the audit report: organize and summarize details, review and finalize results, emphasize critical issues, and establish unique identifiers or codes for critical issues to facilitate tracking and monitoring. (Create)	
II.C.2	**2. Effective reports** Develop and evaluate components of effective audit reports, including background information, executive summary, prioritized results (observations, findings, opportunities for improvement). Present information in an effective manner, using graphical or simple analytical tools to emphasize conclusions and develop a timeline for auditee response and/or corrections. (Create)	Clarified wording for using graphical tools

2012 BoK Code	2019 BoK Details	Notes
II.C.3	**3. Final audit report steps** Obtain necessary approvals for the audit report and distribute it according to established procedures. Identify the contents of the audit file and retain the file in accordance with established policies and procedures. (Apply)	
	D. Audit follow-up and closure	
II.D.1	**1. Elements of corrective and preventive action (CAPA) process** Identify and evaluate various elements: assignment of responsibility for problem identification; the performance of root cause analysis and recurrence prevention. (Evaluate)	Updated corrective action to include preventive action (CAPA)
II.D.2	**2. Review of corrective and preventive action (CAPA) plan** Evaluate the acceptability of proposed CAPA and schedule for completion. Identify and apply strategies for negotiating changes to unacceptable plans. (Evaluate)	Updated corrective action to include preventive action (CAPA)
II.D.3	**3. Verification of corrective and preventive action (CAPA)** Determine the adequacy of CAPA taken by verifying and evaluating new or updated procedures, observing revised processes, and conducting follow-up audits. (Evaluate)	Updated corrective action to include preventive action (CAPA)
II.D.4	**4. Follow-up on ineffective corrective and preventive action (CAPA)** Develop strategies to use when CAPAs are not implemented or are not effective, such as communicating to the next level of management, reissuing the CAPA request, and re-auditing. (Create)	Updated corrective action to include preventive action (CAPA)
II.D.5	**5. Audit closure** Identify and apply various elements of, and criteria for, audit closure. (Apply)	
	III. Auditor Competencies [24 Questions]	Number of questions changed from 25 to 24
III.A	**A. Auditor characteristics** Identify characteristics that make auditors effective: interpersonal skills, problem-solving skills, attention to detail, cultural awareness and sensitivity, ability to work independently as well as in a group or on a team, etc. In addition, apply lead auditor characteristics including: negotiation skills and the ability to direct an audit team by balancing strengths and weaknesses of the team members. (Apply)	Added lead auditor characteristics

2012 BoK Code	2019 BoK Details	Notes
III.B	**B. On-site audit resource management** Identify and apply techniques for managing audit teams, scheduling audit meetings and activities, making logistical adjustments, etc. (Apply)	
III.C	**C. Conflict resolution** Identify typical conflict situations (mild to vehement disagreements, auditee delaying tactics, interruptions, etc.) and determine appropriate techniques for resolving them: clarification of the question or request, reiteration of ground rules, intervention by another authority, and use of cool-down periods. (Analyze)	
III.D	**D. Communication and presentation techniques** Select and use written, oral, and electronic communication techniques for presentations made during audits for opening, closing, and ad hoc meetings. Use technical and managerial reporting techniques, including graphs, charts, diagrams, and multimedia aids in various situations: domestic, global, in-person, multiple sites, etc. (Evaluate)	Removed: virtual (e-audits)
	E. Interviewing techniques Select and use appropriate interviewing techniques and methodologies. (Apply)	
III.E.1	1. Use open-ended or closed question types.	
III.E.2	2. Use active listening, paraphrasing, and empathy.	
III.E.3	3. Recognize and respond to non-verbal cues: body language, the significance of pauses and their length.	
III.E.4	4. Determine when and how to prompt a response: when supervisors are present, when interviewing a group of workers, when using a translator.	
	F. Team dynamics Define, describe, and apply various aspects of team dynamics. (Apply)	
III.F.1	1. Team-building: clarifying roles and responsibilities for participants and leaders to ensure equitable treatment for all team members, providing clear direction for deliverables, identifying necessary resources and ensuring their availability.	
III.F.2	2. Team facilitation: providing coaching and guidance, defusing clashes between members, eliciting input from all, cultivating objectivity, overseeing progress, and encouraging diverse views and consensus.	
III.F.3	3. Stages of team development: forming, storming, norming, and performing.	

2012 BoK Code	2019 BoK Details	Notes
	IV. Audit Program Management and Business Applications [30 Questions]	
	A. Audit program management	
IV.A.1	**1. Senior management support** Identify and explain management's role in creating and supporting the audit function. (Understand)	
IV.A.2	**2. Staffing and resource management** Develop staffing budgets that provide adequate time for auditors to plan, conduct, and respond to scheduled audits, including time and resources that internal auditees need to participate. Identify any special equipment resources needed and ensure their adequacy and availability. Consider the use of and requirements for special audits (outsourced or contracted audits, shared audits, integrated audits) as driven by costs, geography, etc. Evaluate results and adjust resources as needed on a regular basis. (Evaluate)	Added integrated audits, removed virtual or e-audits
IV.A.3	**3. Auditor training and development** Identify minimum audit knowledge and skill requirements for auditors. Provide training on the audit process and relevant (industry-specific) standards, regulations, and legal requirements. Include training on diversity and cultural influences (ethnicity, gender, age, organized labor, etc.) and facilitation techniques. Examine how such factors can affect communications and other interactions among audit participants. Define requirements for continuing education to maintain auditor qualifications. (Analyze)	Decreased cognitive level from Create to Analyze; Added industry-specific, and regulations and legal requirements. Also added requirements for continuing education to maintain auditor qualifications
IV.A.4	**4. Audit program evaluation** Select the correct metric to evaluate the audit program, including tracking its effect on the bottom line and the risk to the organization. (Evaluate)	
IV.A.5	**5. Internal audit program management** Develop procedures, policies, and schedules to support the organization's objectives. Review internal audit results to identify systemic trends. (Create)	
IV.A.6	**6. External audit program management** Develop procedures, policies, and schedules in support of the supplier management program, including supplier qualification surveys, surveillance audits, and supplier improvement (Create)	
IV.A.7	**7. Best practices** Analyze audit results to standardize best practices and lessons learned across the organization. (Analyze)	

2012 BoK Code	2019 BoK Details	Notes
IV.A.8	**8. Organizational risk management** Analyze how the audit program affects an organization's risk level and how the risk level can influence the number and frequency of audits performed. (Analyze) [Note: Tools and techniques for managing risk are covered in BoK area V.H.]	
IV.A.9	**9. Management review input** Examine and summarize audit program results, trends, and changes in risk to provide input to management reviews. (Evaluate)	
NEW	**10. Electronic records and computerized system considerations** Define and apply techniques to identify data integrity, fraud, and cybersecurity issues when auditing systems that include electronic records and/or computerized systems. (Apply)	New topic to the BoK
	B. Business and financial impact	
IV.B.1	**1. Auditing as a management tool** Use audit results to monitor continuous improvement, supplier management, and customer satisfaction, and to provide management with an independent view of the strategic plan's effectiveness and how well it is deployed. (Analyze)	
IV.B.2	**2. Interrelationships of business processes** Identify how business units (receiving, product and process design, production, engineering, sales, marketing, field support, etc.) and multiple sites are interrelated, and recognize how their unique metrics and goals potentially conflict with one another. (Understand)	
IV.B.3	**3. Cost of quality (COQ) principles** Identify, describe, and analyze the audit program's effect on the four COQ categories: prevention, appraisal, internal failure, external failure. (Analyze)	
	V. Quality Tools and Techniques [24 Questions]	Number of questions changed from 26 to 24
V.A.1 - V.A.9	**A. Basic quality and problem-solving tools** Identify, interpret, and analyze: 1) Pareto charts, 2) cause and effect diagrams, 3) flowcharts, 4) statistical process control (SPC) charts, 5) check sheets, 6) scatter diagrams, 7) histograms, 8) root cause analysis, 9) plan-do-check-act (PDCA). (Analyze)	

2012 BoK Code	2019 BoK Details	Notes
	B. Process improvement techniques	
V.B.1	**1. Six sigma** Identify, interpret, and apply the six sigma DMAIC phases: define, measure, analyze, improve, control. (Apply)	
V.B.2	**2. Lean** Identify, interpret, and apply lean tools: 5S, standard operations, kanban (pull), error-proofing, value-stream mapping, etc. (Apply)	
	C. Basic statistics	
V.C.1	**1. Measures of central tendency** Identify, interpret, and use mean, median, and mode. (Apply)	
V.C.2	**2. Measures of dispersion** Identify, interpret, and use standard deviation and frequency distribution. (Apply)	
V.C.3	**3. Qualitative and quantitative analysis** Describe qualitative data in terms of the nature, type, or attribute of an observation or condition. Describe how quantitative data is used to detect patterns or trends and how such analysis can indicate whether a problem is systemic or isolated. (Understand)	
	D. Process variation	
V.D.1	**1. Common and special cause** Identify and distinguish between common and special cause variation. (Apply)	
V.D.2	**2. Process performance metrics** Describe elements of C_p and C_{pk} process capability studies (process centering and stability, specification limits, underlying distribution, etc.), and how these studies and other performance metrics are used in relation to established goals. (Understand)	
V.D.3	**3. Outliers** Describe their significance and impact. (Understand)	

2012 BoK Code	2019 BoK Details	Notes
	E. Sampling methods	
V.E.1	**1. Acceptance sampling plans** Identify and interpret these plans for attributes and variables data. (Understand)	
V.E.2	**2. Types of sampling** Describe and distinguish between random, stratified, and cluster sampling. Identify the uses and potential problems of non-statistical sampling. (Understand)	
V.E.3	**3. Sampling terms** Define related terms including consumer and producer risk, confidence level, etc. (Understand)	
V.F	**F. Change control and configuration management** Identify the principles of change control and configuration management systems as used in various applications: hardware, software (including security considerations), product, process, and service. (Understand)	
V.G	**G. Verification and validation** Define, distinguish between, and use various methods of verifying and validating processes. (Analyze)	
V.H	**H. Risk management tools** Identify methods for managing risk, including risk avoidance, mitigation, tradeoffs, etc., and describe tools and methods for estimating and controlling risk: process / design failure mode and effects analysis (FMEA, PFMEA, DFMEA), hazard analysis and critical control points (HACCP), and critical to quality (CTQ) analysis. (Understand) [Note: Organizational risk management is covered in BoK area IV.A.8.]	Added PFMEA and DFMEA; removed health hazard analysis (HHA)

Table 3. 2012 CQA BoK mapped to the 2019 CQA BoK

2012 BoK		2019 BoK		Notes
Number	**Label**	**Number**	**Label**	
I.A.1	Method	**I.A.1**	Method	Added service and integrated (combined and joint)
I.A.2	Auditor-auditee relationship	**I.A.2**	Auditor-auditee relationship	
I.A.3	Purpose	**I.A.3**	Purpose	Added preventive action (CAPA) and clarified risk
I.A.4	Common elements with other audits	**I.A.4**	Common elements with other audits	
I.B.1	Elements of purpose and scope	**I.B.1**	Elements of purpose and scope	
I.B.2	Benefits of audits	**I.B.2**	Benefits of audits	Changed bottom line to financial risks and added cybersecurity risks
I.C	Criteria to audit against	**I.C**	Criteria to audit against	
I.D	Roles and responsibilities of audit participants	**I.D**	Roles and responsibilities of audit participants	
I.E.1	Professional conduct and responsibilities	**I.E.1**	Professional conduct and responsibilities	Changed code of conduct to code of ethics
I.E.2	Legal consequences	**I.E.2**	Legal consequences	
I.E.3	Audit credibility	**I.E.3**	Audit credibility	
II.A.1	Elements of audit planning process	**II.A.1**	Elements of audit planning process	Added examples of criteria to audit against including customer requirements, applicable standards and regulations (laws) and documentation requirements
II.A.2	Auditor selection	**II.A.2**	Auditor selection	Added auditor independence
II.A.3	Audit-related documentation	**II.A.3**	Audit-related documentation and considerations	Updated subtopic name. Added data integrity, electronic documents and records, and control of computerized systems (cybersecurity)
II.A.4	Logistics	**II.A.4**	Logistics	Added more examples of facility accommodations: internet access, printers, work space, and PPE
II.A.5	Auditing tools and working papers	**II.A.5**	Auditing tools and working papers	Added method of documentation (manual and electronic)
II.A.6	Auditing strategies	**II.A.6**	Auditing strategies	
II.B.1	On-site audit management	**II.B.1**	On-site audit management for the auditor	Updated subtopic name. Clarified what is communicated to the auditee

2012 BoK		2019 BoK		Notes
Number	**Label**	**Number**	**Label**	
II.B.2	Opening meeting	**II.B.3**	Opening meeting	
II.B.3	Audit data collection and analysis	**II.B.4**	Audit data collection and analysis	
II.B.4	Establishment of objective evidence	**II.B.5**	Establishment of objective evidence	
II.B.5	Organization of objective evidence	**II.B.6**	Organization of objective evidence	
II.B.6	Exit and closing meeting	**II.B.7**	Exit and closing meeting	
II.C.1	Report development and content	**II.C.1**	Report development and content	
II.C.2	Effective reports	**II.C.2**	Effective reports	Clarified wording for using graphical tools
II.C.3	Final audit report steps	**II.C.3**	Final audit report steps	
II.D.1	Elements of corrective action process	**II.D.1**	Elements of the corrective and preventive action (CAPA) process	Updated corrective action to include preventive action (CAPA)
II.D.2	Review of corrective action plan	**II.D.2**	Review of corrective and preventive action (CAPA) plan	Updated corrective action to include preventive action (CAPA)
II.D.3	Verification of corrective action	**II.D.3**	Verification of corrective and preventive action (CAPA)	Updated corrective action to include preventive action (CAPA)
II.D.4	Follow-up on ineffective corrective action	**II.D.4**	Follow-up on ineffective corrective and preventive action (CAPA)	Updated corrective action to include preventive action (CAPA)
II.D.5	Audit closure	**II.D.5**	Audit closure	
III.A	Auditor characteristics	**III.A**	Auditor characteristics	Added lead auditor characteristics
III.B	On-site audit resource management	**III.B**	On-site audit resource management	
III.C	Conflict resolution	**III.C**	Conflict resolution	
III.D	Communication and presentation techniques	**III.D**	Communication and presentation techniques	Removed: virtual (e-audits)
III.E.1	Use open-ended or closed question types	**III.E.1**	Use open-ended or closed question types	
III.E.2	Use active listening, paraphrasing, empathy, etc.	**III.E.2**	Use active listening, paraphrasing, empathy, etc.	

2012 BoK		2019 BoK		Notes
Number	**Label**	**Number**	**Label**	
III.E.3	Recognize and respond to non-verbal cues: body language, the significance of pauses and their length, etc.	**III.E.3**	Recognize and respond to non-verbal cues: body language, the significance of pauses and their length, etc.	
III.E.4	Determine when and how to prompt a response: when supervisors are present, when interviewing a group of workers, when using a translator	**III.E.4**	Determine when and how to prompt a response: when supervisors are present, when interviewing a group of workers, when using a translator	
III.F.1	Team-building	**III.F.1**	Team-building	
III.F.2	Team facilitation	**III.F.2**	Team facilitation	
III.F.3	Stages of team development	**III.F.3**	Stages of team development	
IV.A.1	Senior management support	**IV.A.1**	Senior management support	
IV.A.2	Staffing and resource management	**IV.A.2**	Staffing and resource management	Added integrated audits, removed virtual or e-audits
IV.A.3	Auditor training and development	**IV.A.3**	Auditor training and development	Decreased cognitive level from Create to Analyze; Added industry-specific, and regulations and legal requirements. Also added requirements for continuing education to maintain auditor qualifications
IV.A.4	Audit program evaluation	**IV.A.4**	Audit program evaluation	
IV.A.5	Internal audit program management	**IV.A.5**	Internal audit program management	
IV.A.6	External audit program management	**IV.A.6**	External audit program management	
IV.A.7	Best practices	**IV.A.7**	Best practices	
IV.A.8	Organizational risk management	**IV.A.8**	Organizational risk management	
IV.A.9	Management review input	**IV.A.9**	Management review input	
IV.B.1	Auditing as a management tool	**IV.B.1**	Auditing as a management tool	
IV.B.2	Interrelationships of business processes	**IV.B.2**	Interrelationships of business processes	
IV.B.3	Cost of quality (COQ) principles	**IV.B.3**	Cost of quality (COQ) principles	

2012 BoK		2019 BoK		Notes
Number	Label	Number	Label	
IV.B.4	Emerging roles of the auditor	IV.B.4		Removed from BoK
V.A.1	Pareto charts	V.A.1	Pareto charts	
V.A.2	Cause and effect diagram	V.A.2	Cause and effect diagram	
V.A.3	Flowcharts	V.A.3	Flowcharts	
V.A.4	Statistical process control (SPC)	V.A.4	Statistical process control (SPC)	
V.A.5	Check sheets	V.A.5	Check sheets	
V.A.6	Scatter diagrams	V.A.6	Scatter diagrams	
V.A.7	Histograms	V.A.7	Histograms	
V.A.8	Root cause analysis	V.A.8	Root cause analysis	
V.A.9	Plan-do-check-act (PDCA)	V.A.9	Plan-do-check-act (PDCA)	
V.B.1	Six Sigma	V.B.1	Six Sigma	
V.B.2	Lean	V.B.2	Lean	
V.C.1	Measures of central tendency	V.C.1	Measures of central tendency	
V.C.2	Measures of dispersion	V.C.2	Measures of dispersion	
V.C.3	Qualitative and quantitative analysis	V.C.3	Qualitative and quantitative analysis	
V.D.1	Common and special cause	V.D.1	Common and special cause	
V.D.2	Process performance metrics	V.D.2	Process performance metrics	
V.D.3	Outliers	V.D.3	Outliers	
V.E.1	Acceptance and sampling plan	V.E.1	Acceptance and sampling plan	
V.E.2	Types of sampling	V.E.2	Types of sampling	

2012 BoK		2019 BoK		Notes
Number	**Label**	**Number**	**Label**	
V.E.3	Sampling terms	**V.E.3**	Sampling terms	
V.F	Change control and configuration management	**V.F**	Change control and configuration management	
V.G	Verification and Validation	**V.G**	Verification and Validation	
V.H	Risk management tools	**V.H**	Risk management tools	Added PFMEA and DFMEA; removed health hazard analysis (HHA)