



AMERICAN
PETROLEUM
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Individual Certification Programs: ICP™
Body of Knowledge



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BODY OF KNOWLEDGE

API LAQ1 – Lead Auditor Spec Q1 Certification Examination

Lead Auditors who hold an API Lead Auditor Spec Q1 certification are expected to have knowledge of basic and lead auditing, and API Spec Q1 requirements.

The examination consists of 150 multiple choice questions and will be closed book. Reference materials will not be allowed in the testing rooms.

Basic Auditing

There will be 75 questions that test the applicant's knowledge of basic and lead auditing. The questions were developed based on the auditing principles covered in the following reference materials:

- ISO 9000:2005 – Quality management systems – Fundamentals and vocabulary – **All of Clause 3**
- ISO 19011:2011 – Guidelines for auditing management systems – **Clauses 3, 5 and 6**
- CQA Primer by the Quality Council of Indiana – **Chapters II, IV, V and VI**
- ASQ's Foundations in Quality Learning Series Program: Certified Quality Auditor – **Modules 1, 2 and 4**
- The ASQ Auditing Handbook, 4th ed., by J. P. Russell – **Chapters 1 to 16**
- Quality Audits for Improved Performance, 3rd edition, by Dennis Arter – **All chapters**
- How to Audit the Process-Based QMS, 2nd edition, by Dennis R. Arter, Charles A. Cianfrani and John E. (Jack) West – **All chapters except 7 and 12**

Topics covered under this part are listed below.

1. Auditing fundamentals

This section relates to the applicant's knowledge of :

- a) terms and definitions used in auditing
- b) the different types of audits based on what is being audited, who is being audited and why is the audit being performed;
- c) purposes of audits; and



- d) audit scope, objectives and criteria

2. Ethics and Standards of Conduct for Auditors

This section relates to the ethical expectations from an API-certified auditor including:

- a) Conflict of interest
- b) Independence and objectivity
- c) Confidentiality and integrity

3. Audit Programs

This section relates to the applicant's knowledge of the development and management of audit programs in all types of auditee-auditor relationships, including:

- a) Identification of audit program objectives
- b) Development and implementation of an audit program
- c) Evaluation of the effectiveness of the audit program
- d) Use of the audit program as management tool to improve business performance

4. Process auditing

This type of auditing is covered in a separate section since this is the preferred auditing technique of the oil and gas industry. This relates to the applicant's knowledge of process auditing including the:

- a) Definition of a process
- b) Advantages of process auditing
- c) Difference between process auditing and other auditing techniques
- d) Use of audit trails in a process audit

5. Pre-audit activities

This section relates to the applicant's knowledge of the activities in preparing for an audit and covers topics such as:

- a) Audit planning
- b) Preparation of auditing tools
- c) Review of audit documentation
- d) Coordinating logistics

- e) Assignment of the audit team

6. Conducting the audit

This section relates to the applicant's knowledge of the requirements of effectively performing on-site audit activities such as:

- a) Conducting/managing the opening/entrance meeting
- b) Identifying and collecting samples
- c) Reviewing documents/records, observing and interviewing
- d) Communicating with audit team and auditee
- e) Using auditing tools
- f) Identifying/documenting/communicating findings
- g) Analyzing audit data to develop the audit conclusion/summary
- h) Conducting/managing the closing or exit meeting

7. Audit reporting/follow up activities

This section relates to the applicant's knowledge of post-audit activities that include:

- a) Writing a process audit report
- b) Writing a nonconformity
- c) Documenting conclusions
- d) Reviewing corrective action plans
- e) Evaluating corrective actions
- f) Verifying corrective actions

8. Lead Auditing

This section will test the applicant's knowledge of leading an audit team. The topics covered in this part include:

- a) Responsibilities of the Lead Auditor
- b) Competency requirements of the Lead Auditor
- c) Resolving conflicts within the audit team
- d) Coordinating and assigning audit activities
- e) Making decisions on findings and audit conclusion



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Understanding of API Spec Q1 Requirements

There will be 75 questions designed to test the applicant's knowledge of ALL requirements of the most current edition of *API Spec Q1, Specification for the Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry*, including Annex A and normative references.