

1 **BSR/ICE 1100-201x, ICE 1100-201x - Standard for Assessment-Based Certificate**
2 **Programs (revision and redesignation of ANSI/NOCA 1100-2009)**

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4 *The following is a normative part of the Standard*

5 **1 Scope**

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7 This standard pertains to assessment-based certificate programs. An assessment-based certificate
8 program is a non-degree-granting program that:

- 9
10 a) provides instruction and training to aid participants in acquiring specific knowledge, skills, and/or
11 competencies associated with intended learning outcomes;
12 b) evaluates participants' accomplishment of the intended learning outcomes; and
13 c) issues a certificate only to those participants who meet the performance, proficiency, or passing
14 standard for the assessment(s) (hence the term, assessment-based certificate program).
15

16 This standard is not intended to cover classes, courses, programs, or events that award only a certificate
17 of attendance or participation; nor is it intended to apply to professional or personnel certification
18 programs.
19

20 As used within this Standard, the terms "program" or "certificate program" refer to an assessment-based
21 certificate program.
22

23 **2 Organizational Structure, Responsibilities, and Resources**

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25 **The certificate provider shall have the appropriate expertise, resources, and organizational**
26 **structure to offer and maintain a program that meets or exceeds the requirements of this**
27 **Standard.**

28
29 Structure and Responsibilities

- 30
31 **2.1** The certificate provider shall be a recognized legal entity or part of a legal entity.
32
33 **2.2** The certificate provider shall retain sole responsibility for defining the:
34 a) purpose and scope of the program;
35 b) prerequisites required to participate; and
36 c) criteria for successful completion of the program (e.g., completion of the education/training;
37 meeting the performance, proficiency, or passing standard).
38
39 **2.3** The certificate provider shall have sole authority to issue a certificate based only on information
40 supplied by the participant and his or her achievement (i.e., application, education/training,
41 assessment[s]).
42
43 **2.4** The certificate provider shall confine its program requirements to those matters specifically
44 related to the purpose and scope of the program.
45

46 Resources

- 47
48 **2.5** The certificate provider shall have the financial resources necessary to carry out its
49 operations capably and to support an effective program.
50
51 **2.6** The certificate provider shall contract with or employ a sufficient number of individuals necessary
52 for the operational management of the program. The required qualifications, credentials, skills,
53 and competencies for such individuals and their responsibilities relating to the program shall be
54 specific specified and documented by the certificate provider.

- 55
56 **2.7** The certificate provider shall use subject-matter experts (SMEs) and qualified individuals for the
57 design, development, delivery, and maintenance of the certificate program content and
58 assessment(s). The required qualifications, credentials, skills, and/or competencies for these
59 individuals and their responsibilities relating to the program shall be specified and documented by
60 the certificate provider.
61
62 **2.8** The certificate provider is responsible for monitoring, assessing, and assuring the quality
63 of all activities performed on its behalf in accordance with documented procedures. This
64 responsibility includes evaluation of activities performed by employees, committees, contractors,
65 and/or other individuals. The certificate provider shall conduct periodic evaluations to assess the
66 quality and effectiveness of its certificate program and to inform future improvements.
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69 **3 Policies and Procedures**

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71 **The certificate provider is responsible for defining, documenting, and maintaining policies and**
72 **procedures that ~~confirm~~ conform to this Standard and that are made accessible to program**
73 **participants and other stakeholders, as required for the specific program.**
74

- 75 **3.1** The certificate provider shall define policies and procedures for the operation of the program and
76 for the development, delivery and maintenance of the education/training and assessment(s) that
77 constitute(s) the program. These policies and procedures shall specify the:
78 a) qualifications required of all employees, committees, contractors, and/or individuals involved in
79 the development, delivery, and ongoing maintenance of the education/training and
80 assessment(s);
81 b) procedures used to develop and maintain the education/training;
82 c) methods used to deliver the education/training;
83 d) procedures used to develop and maintain assessment(s);
84 e) methods used to conduct assessment(s);
85 f) types of assessment(s) and procedures used to evaluate or score participants' performance on
86 the assessment(s);
87 g) types of feedback provided to participants; and
88 h) documented quality assurance procedures, to include processes to correct identified
89 deficiencies.
90
91 **3.2** The certificate provider shall make publicly available:
92
93 a) the purpose and scope of the program;
94 b) the target audience for the program;
95 c) eligibility requirements and prerequisites;
96 d) a description of the education/training provided and the intended learning outcomes;
97 e) a brief description of the assessment(s), including an overview of ~~how they are developed and~~
98 ~~validated~~ the process for developing and gathering validity evidence for the assessment(s);
99 how a participant's performance on the assessment(s) is evaluated/scored; the valid uses of
100 the assessment(s) results; and the percentage of participants who meet the performance,
101 proficiency, and/or passing standard for the assessment(s) on an annual basis;
102 f) the qualifications of the facilitators/instructors and SMEs involved in content development;
103 g) the rationale for certificate expiration date and the specific time period for which the certificate
104 is valid (if applicable);
105 h) any changes in program requirements and the effective date of the changes;
106 i) a statement explaining what inferences can properly be made regarding individuals who hold
107 the certificate. These inferences shall be consistent with the stated purpose of the certificate
108 and the assessment(s) and any other information the certificate provider makes public about
109 the certificate and the assessment(s). The certificate provider shall not claim, state, or imply
110 that the program is a professional certification; and

111 j) policies and procedures for the resolution of complaints or appeals received from participants or
112 other parties.
113

114 **3.3** The certificate provider shall establish procedures and make publicly available policies to be
115 followed in the event that a participant:
116 a) misrepresents his/her identity or eligibility status;
117 b) gives or receives unauthorized assistance on the assessment(s);
118 c) claims, states, or implies that the certificate is a professional certification or that its purpose
119 and scope are beyond that specified by the certificate provider; or
120 d) engages in other violations of established policies.
121

122 **3.4** The ~~certificate provider's~~ policies and procedures ~~of the certificate provider, including their~~
123 ~~implementation,~~ shall be fair and equitable to eligible applicants and participants, in both
124 substance and implementation. The certificate provider must comply in compliance with all
125 applicable legal requirements, including in providing access ~~.The certificate provider shall not~~
126 ~~deny access to~~ applicants and participants who meet the eligibility criteria.
127

128 **4. Management of Program Records, Documents, and Materials**

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130 **The certificate provider shall maintain orderly and accurate records, documents, and/or other**
131 **materials and manage them in a responsible manner.**
132

133 **4.1** The certificate provider shall delineate the process for identifying the title(s) of the individuals
134 responsible for maintaining and disposing of program records, documents, and/or materials.
135

136 **4.2** The certificate provider shall maintain a record system that is appropriate to the scope and stakes
137 of its program and in compliance with legal requirements. The records, documents, and/or other
138 materials maintained shall include:
139

- 140 a) a listing of all individuals who are currently participating in but have not yet successfully
141 completed the education/training and/or assessment(s), including status and
142 requirements met to date;
- 143 b) a listing of all participants who have been issued a certificate; the date that the certificate
144 was issued, and (if applicable) for how long the certificate is valid;
- 145 c) the individual performance of participants on the assessment(s) and the related
146 performance, proficiency, or passing standard for the assessment(s); and
- 147 d) the effectiveness of the assessments (e.g., information describing key measurement
148 characteristics [e.g., difficulty and reliability] as appropriate to the assessment type and
149 nature).

150
151 **4.3** The certificate provider shall have procedures in place for reviewing, approving, updating, and
152 ensuring the accuracy and currency of records, documents, and/or other materials.
153

154 **4.4** The certificate provider shall identify, manage, and dispose of records, documents, and/or other
155 materials in a manner that ensures the integrity of the program and the confidentiality of its
156 information. The records, documents, and/or other materials shall be kept for a reasonable period
157 of time, as stated in program policy; as required by relevant bodies; or as required by contractual,
158 legal, or other obligations.
159

160 Confidentiality and Security of Records, Documents, Data and/or Other Materials
161

- 162 4.5 The certificate provider and/or its contractors shall maintain all personal and financial information
163 pertaining to participants (e.g., date of birth, social security number, credit card number,
164 assessment(s) results) in a manner that is secure and, at a minimum, complies with applicable
165 laws.
166
- 167 4.6 The certificate provider and/or its contractors shall maintain all learning and assessment(s)
168 materials, data, and results in a secure manner throughout their useful life. Measures shall be in
169 place to ensure the ongoing confidentiality, integrity, availability, and resilience of the processing
170 systems used to store such materials, data, and results. The certificate provider shall have
171 policies and procedures in place to notify stakeholders promptly in the event of a data breach.
172
173
- 174 4.7 The certificate provider shall state which program and/or participant information must be treated
175 as confidential and the conditions under which such information may be disclosed to parties other
176 than the organization or individual from whom the information was obtained. Participants shall be
177 informed of all conditions for information disclosure prior to entering the program. Confidentiality
178 shall be maintained in accordance with documented guidelines and applicable laws by all
179 individuals working for or on behalf of the certificate provider.
180

181 5 Development, Delivery, and Maintenance of Education/Training

182

183 **The certificate provider shall ensure that the education/training is designed, developed, delivered,**
184 **and evaluated by qualified individuals in a manner that is appropriate to the intended learning**
185 **outcomes, consistent with generally accepted instructional design principles, and based on a**
186 **needs analysis.**
187

188 Needs Analysis

189

- 190 5.1 The certificate provider shall have a process for conducting a structured needs analysis that
191 guides the development of learning outcomes and learning design.
192
- 193 5.2 The procedure used to conduct the needs analysis shall be consistent with the stated purpose
194 and scope of the program. The procedure should include qualified participants and stakeholders
195 knowledgeable about the intention, use, purpose, scope, and stakes of the certificate program.
196
- 197 5.3 The educational/training content, intended learning outcomes, and assessment(s) shall be based
198 on the needs analysis of stakeholders.
199

200 Design

201

- 202 5.4 The certificate provider shall ensure that the intended learning outcomes, content, delivery, and
203 assessment(s) methods align with the needs analysis and the program's scope and intended use
204 of the certificate.
205
- 206 5.5 The education/training shall employ generally accepted instructional design methods that are
207 relevant to the content, audience, and delivery method.
208

209 Development

210

- 211 5.6 The creation and/or selection of educational/training content and materials shall effectively
212 address the results of the needs analysis.
213
- 214 5.7 The certificate provider shall ensure that the education/training follows instructional design
215 principles and is developed by qualified individuals, which should include SMEs., ~~and follows~~
216 ~~instructional design principles.~~

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Implementation

- 5.8 The certificate provider shall deliver the education/training as designed. The delivery shall enable participants to accomplish the intended learning outcomes and shall be consistent with the purpose and scope of the program.
- 5.9 For instructor-led courses, the certificate provider shall ensure that the education/training is delivered by qualified facilitators/instructors using materials appropriate for delivering the education/training as designed.

Evaluation

- 5.10 The content of the education/training shall be reviewed periodically (at least annually) by SMEs and qualified individuals to ensure that it remains current and accurate. The intended learning outcomes and content of the education/training shall be modified as needed to ensure that any changes in purpose, scope, or content are incorporated. The certificate provider shall specify the procedures used for updating the content as well as the circumstances under which updating should occur.
- 5.11 The design and delivery of the education/training should be evaluated periodically (at least annually) by SMEs and qualified individuals. Modifications made shall be based on collected data/feedback to ensure that any changes in the purpose, scope, or content of the program are incorporated and that the current, generally accepted instructional design principles are reflected.
- 5.12 The certificate provider and program participants shall evaluate and provide feedback on the performance of facilitators/instructors, if applicable.

6 Development, Conduct, and Evaluation of Assessments

The certificate provider shall conduct summative assessment(s) of participants' accomplishment of the intended learning outcomes and shall ensure that the procedures used to develop and conduct the assessment(s) and to evaluate/score participants' performance are consistent with the intended use of the certificate.

Validation of the Content of the Assessment(s)

- 6.1 The certificate provider shall employ a procedure to demonstrate that the assessment(s) is valid for its intended purpose and shall choose a validation methodology that is appropriate for the stakes of the program and assessment(s). A job or practice analysis that is appropriate for the scope of the program shall be conducted for high stakes programs.
- 6.2 The certificate provider shall employ a methodology to link the assessment(s) to the intended learning outcomes. The intended learning outcomes—or the knowledge, skills, and/or competencies needed for participants to achieve the intended learning outcomes—must be represented in appropriate proportions on the assessment(s) (i.e., the number of assessment items or points allotted to each intended learning outcome shall be proportional to the depth, breadth, and complexity of each intended learning outcome). Documentation may include a table or document listing the knowledge, skills, and/or competencies needed for participants to achieve the intended learning outcomes and identifying how the specified knowledge, skills, and/or competencies are covered by the assessment(s).

- 271 **6.3** The type of assessment(s), including item types, shall be appropriate for measuring participants'
272 accomplishment of the intended learning outcomes and consistent with the stated purpose of the
273 program.
274
- 275 **6.4** The content of the assessment(s) shall be appropriate for measuring participants'
276 accomplishment of the intended learning outcomes and consistent with the published purpose of
277 the program.
278
- 279 **6.5** The certificate provider shall ensure that the content of the assessment(s) is reviewed and
280 updated as necessary to reflect changes in the scope, purpose, or content of the program (e.g.,
281 changes in intended learning outcomes, changes in education/training).
282

283 Conducting the Assessment(s)

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- 285 **6.6** The method for conducting the assessment(s) shall be consistent with the stakes of the program
286 and its stated purpose. The certificate provider shall ensure comparability in the environments in
287 which the assessment(s) occurs. Documentation shall address the following:
288 a) conditions of the environments in which the assessment(s) take(s) place (e.g., type of setting),
289 b) method(s) of conducting the assessment(s) (e.g., face to face, computer, paper and pencil),
290 c) materials and equipment needed to conduct the assessment(s),
291 d) instructions to participants,
292 e) time allotted for conducting the assessment(s), and
293 f) level of security required to be consistent with the intended purpose of the certificate.
294

295 Evaluation and Scoring of Participant Performance

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- 297 **6.7** The certificate provider shall identify a performance, proficiency, or passing standard for the
298 assessment(s) that participants must achieve in order to be issued the certificate. The method
299 used for setting the performance, proficiency, or passing standard shall be consistent with the
300 stakes and stated purpose of the certificate. This method shall demonstrate that the performance,
301 proficiency, or passing standard reflects the expected performance of a participant who has
302 achieved the intended learning outcomes. Documentation should identify the number of
303 participants, provide a rationale for the method, and describe any other resources considered.
304
- 305 **6.8** The certificate provider shall document the methods for evaluating or scoring participants'
306 performance on all types of assessment(s), whether they are objectively or subjectively evaluated
307 or scored.
308
- 309 **6.9** For subjectively scored assessment(s) (e.g., essays, work products, portfolios, demonstrations,
310 presentations), the certificate provider shall:
311 a) supply raters with rating or scoring scales, performance evaluation checklists, rubrics, and/or
312 other appropriate guidelines to be used to evaluate participant performance;
313 b) train raters in the use of the rating or scoring scales, performance evaluation checklists,
314 rubrics, and/or other appropriate guidelines;
315 c) establish procedure(s) by which raters can be calibrated periodically (if multiple raters are
316 used);
317 d) conduct and report analyses of the consistency and/or agreement in the raters'
318 evaluation/scoring as appropriate for the type of assessment(s) and its intended use; and
319 e) establish procedure(s) by which significant differences in scoring among raters can be
320 discussed and/or remedied (if applicable).
321
- 322 **6.10** The certificate provider shall ensure the comparability of different forms (versions) of the
323 assessment(s) with respect to content coverage and overall difficulty (i.e., the questions on
324 comparable versions of an assessment(s) should cover the same knowledge areas and have the
325 same overall difficulty).
326

327 Reporting and Interpretation of Assessment(s) Results

328

329 **6.11** The certificate provider shall report the results of the summative assessment(s) to program
330 participants in a manner that is appropriate for the type of assessment(s) and consistent with the
331 published purpose and stakes of the assessment(s). At a minimum, participants shall be informed
332 as to whether they have passed or failed the assessment(s). If a report of participants' relative
333 strengths and weaknesses related to accomplishment of the intended learning outcomes (i.e.,
334 individually or in subgroups) is provided for remediation purposes, the certificate provider must
335 either be able to demonstrate evidence of subscore reliability or provide participants with
336 interpretive guidance around the limitation of subscores.

337

338 **6.12** The certificate provider shall provide participants and stakeholders with guidance on interpreting
339 and using the results of the assessment(s), including what inferences can appropriately be drawn
340 from the results.

341

342 Evaluation of the Effectiveness of the Assessment(s)

343

344 **6.13** The certificate provider shall prepare an annual report of assessment(s) results in aggregate
345 form, summarizing the overall results of the performance of an entire class or period of time (e.g.,
346 one year) to support program evaluation and address other stakeholder interests. At a minimum,
347 the reporting shall include:

- 348 a) the total number of participants who completed the program,
- 349 b) the summary statistics for the assessment(s) (e.g., score mean, standard deviation, minimum,
350 and maximum),
- 351 c) the percentage of participants who passed the assessment(s), and
- 352 d) the minimum score required to pass the assessment(s).

353

354 **6.14** The certificate provider shall evaluate the assessment(s) on a regular basis (at least annually) to
355 ensure ongoing utility for measuring participants' accomplishment of the intended learning
356 outcomes. This evaluation shall include information related to the difficulty of individual items or
357 components of the assessment(s) (e.g., the percentage of participants who answer an item
358 correctly or who perform a task successfully).

359

360 **7 Issuance, Verification, and Use of Certificates**

361

362 **A certificate is issued upon completion of the education/training and successful performance on**
363 **the assessment(s). A certificate shall be issued only in accordance with documented**
364 **requirements and procedures. Certificate holders shall be informed of the proper uses of the**
365 **certificate.**

366

367 Issuance of Certificates

368

369 **7.1** The certificate provider shall identify the requirements and procedures for issuing the certificate.
370 These requirements must state that the certificate provider shall not specify acronyms or letters in
371 reference to the certificate for use after participants' names.

372

373 **7.2** The certificate may take the form of a letter, card, digital badge, or other medium, and must be
374 signed or authorized by the certificate provider or a designated representative of the certificate
375 provider.

376

377 **7.3** The certificate shall contain the following information:

378

- 379 a) name of the certificate holder,

- 380 b) name of the certificate provider,
- 381 c) scope of the accomplishment,
- 382 d) title of the certificate (if appropriate),
- 383 e) date on which the certificate was issued, and
- 384 f) date of expiration of the certificate (if applicable).

385
386 An expiration date for the certificate may be used but is not mandatory; if an expiration date is
387 used, it must be noted on the certificate.

388
389 **7.4** The certificate provider shall have a verification procedure in place by which the status of
390 certificate holders can be confirmed by employers and other stakeholders.

391
392 **7.5** The certificate provider shall have a policy stating that it maintains the right to recall or nullify the
393 certificate in the event any certificate holder has violated program requirements or policies. The
394 certificate provider shall maintain sole ownership of the certificate in whichever format or medium
395 it may take.

396
397 Use of Certificates

398
399 **7.6** The certificate provider shall specify how certificate holders may and may not refer to the
400 certificate. This responsibility includes making publicly available a statement that certificate
401 holders:

- 402 a) may state that they hold a “certificate in ...”;
- 403 b) shall not state that they are “certified in ...”; and
- 404 c) shall not use acronyms or letters after their names in reference to the certificate.

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Annex 1: Terms and Definitions

(This Annex is Normative and Part of the Standard)

appeal

A request by a participant or certificate holder for reconsideration of any a decision made by the certificate provider related to her/his status as a certificate holder.

assessment

An instrument or protocol designed to measure the knowledge, skill, and/or competencies associated with the accomplishment of the intended learning outcomes. Assessments may be written, oral, practical, or observational and may be used prior to, during, and at the end of education/training.

assessment-based certificate

A non-degree-granting program that provides instruction and training to aid participants in acquiring knowledge, skill, and/or competencies associated with intended learning outcomes; evaluates participants' accomplishment of the intended learning outcomes; and issues a certificate only to those participants who meet the performance, proficiency, or passing standard for the assessment(s).

certificate holder

An individual who has successfully completed an assessment-based certificate program and who has been issued a certificate.

certificate of attendance (certificate of participation)

Certificates of attendance or participation are provided to individuals (participants) who have attended or participated in a class, course, or other education/training program or event. The certificate issued at the completion of the program or event signifies that the participant was present, and in some cases, that the participant actively participated in the program or event.

certificate maintenance

~~A system of requirements and procedures with which certificate holders must comply in order to keep a certificate.~~

certificate provider

An entity that conducts or sponsors education/training and an end-of-program assessment for the purpose of issuing a certificate.

certification

~~A voluntary process by which a non-governmental body grants time-limited recognition and use of a credential to individuals who have demonstrated that they have met predetermined and standardized criteria for required knowledge, skills, or competencies. To retain the credential, certificants must meet requirements for renewal. The credential awarded by the certifier denotes that the participant possesses particular knowledge, skills, or competencies. Also known as professional or personnel certification. Individuals are evaluated against predetermined standards for knowledge, skills, or competencies. Participants who demonstrate that they meet the standards by successfully completing the assessment process are granted a time-limited credential. To retain the credential, certificants must maintain continued competence.~~

Whereas the focus of an assessment-based certificate program is on education/training, the focus of professional/personnel certification is on the assessment of participants. Additionally, the certification process requires the assessment to be independent of both a specific class, course, or other education/training program and any provider of classes, courses, or programs.

489
490 **complaint**
491 A request (other than an appeal) by any organization or individual to a certificate provider for corrective
492 action relating to the activities of that provider or to those of any of its customers.
493
494 **criterion-reference**
495 An approach to establishing the performance, proficiency, or passing standard for an assessment
496 in which subject matter experts first define how participants who have accomplished the intended
497 learning outcomes would be expected to perform (e.g., the proficiency category they would
498 achieve, the number of points they would earn) and then set a required level of performance on
499 the assessment that is consistent with this definition.
500
501 **documentation**
502 The collection and preservation of evidence that requirements have been met. Documentation is
503 necessary for many aspects of assessment-based certificate programs (e.g., prerequisites, qualifications
504 of subject matter experts, measurement quality of assessments).
505
506 **facilitator/instructor**
507 A knowledgeable individual or other qualified person who articulates the intended learning outcomes and
508 enables accomplishment of the intended learning outcomes of the certificate program.
509
510 **formative assessment**
511 An assessment that is employed as part of and during the delivery of education/training in order to inform
512 participants and facilitators/instructors about their progress in accomplishing the intended learning
513 outcomes.
514
515 **high stakes**
516 See stakes.
517
518 **inference**
519 The conclusion that one draws on the basis of available evidence (e.g., certificate holders are
520 knowledgeable about a specified topic, the results of an assessment represent the level of skill a person
521 possesses).
522
523 **instructional design principles**
524 Rules, standards, and practices pertaining to the design, delivery, and evaluation of education/training
525 that facilitates accomplishment of intended learning outcomes related to defined knowledge, skill,
526 competencies, and other constructs. Generally accepted instructional design principles are defined by
527 professional literature and standards.
528
529 **intended learning outcome**
530 A statement that identifies what a learner is expected to know, understand, or do as a result of completing
531 an assessment-based certificate program successfully.
532
533 **interrater agreement**
534 Any of several calculations that describe the degree to which there is concurrence between or among the
535 individuals responsible for evaluating/scoring participant performance on subjectively evaluated/scored
536 assessments.
537
538 **interrater reliability**
539 Any of several calculations that describe the consistency in evaluations/scores based on the
540 observation(s) of raters during the evaluation/scoring of subjectively evaluated/scored assessments.
541
542 **item**
543 Questions and/or tasks in examinations to which candidates must respond or perform.
544

545 **job analysis**
546 Any of several methods used singly or in combination to identify the performance domains and
547 associated tasks, knowledge, and/or skills relating to the purpose of the credential and providing the
548 foundation for program validation. Also known as task or practice analysis, job task analysis, or role
549 delineation study.
550

551 **measurement principles**
552 Rules, standards, and practices pertaining to assessing knowledge, skill, competencies, and/or other
553 constructs in a manner that supports the inferences to be made. Generally accepted measurement
554 principles are defined by professional literature and standards (e.g., *Standards for Educational and*
555 *Psychological Testing*).
556

557 **needs analysis**
558 A method by which one determines the requirements for the program, including needs or expectations of
559 learners and other stakeholders, prior to a learning experience, event, or program.
560

561 **objectively scored assessment**
562 A type of scoring rule in which responses to questions or problems on an assessment are deemed as
563 correct or incorrect using a pre-established answer key.
564

565 **participant**
566 An individual who is enrolled as a learner, student, trainee, etc., in an assessment-based certificate
567 program.
568

569 **performance, proficiency, or passing standard**
570 A specific level of performance, proficiency category, or score that must be achieved by a participant to
571 successfully complete an assessment. Performance, proficiency, or passing standards are established
572 using methods that are defined by generally accepted measurement principles.
573

574 **program evaluation**
575 A process through which a variety of data are collected and analyzed for the purpose of determining the
576 effectiveness of an assessment-based certificate program.
577

578 **publicly available**
579 Easily available and accessible, with or without request, to all relevant stakeholders.
580

581 **quality assurance process**
582 An ongoing activity that informs the individuals responsible for managing an assessment-based certificate
583 program in their evaluation of whether a process or activity meets expectations or predefined quality
584 standards. Quality assurance activities are executed on all development processes to help maintain an
585 expected level of effectiveness.
586

587 **quality standards**
588 Criteria addressing the design, development, delivery, and evaluation of assessment-based certificate
589 programs to ensure that the program components are suitable to their purpose and function.
590

591 **rater**
592 A subject matter expert who has been trained in the use of rubrics and rules to evaluate/score the
593 response of participants on one or more subjectively evaluated questions, problems, demonstrations,
594 work products, etc.
595

596 **reliability**
597 The degree to which the results of an assessment are free of measurement error.
598

599 **rubric**

600 The criteria (often called scoring rules) used to guide the evaluation or rating of responses and the
601 emphasis each component has in determining participants' proficiency, with the desired result that
602 responses will be determined as correct, proficient, or successful and weighted in a standardized manner.
603 Scoring rules are part of the implementation of a standardized scoring scale.

604
605 **scope of certificate**

606 The inferences about participants' knowledge, skill, and/or competencies that can be justified based on
607 the education/training provided and their performance on the assessment.

608
609 **scoring rules**

610 The criteria (often called a rubric) used to guide the evaluation or rating of responses and the emphasis
611 each component has in determining participants' proficiency, with the desired result that responses will be
612 determined as correct, proficient, or successful and weighted in a standardized manner. Scoring rules are
613 part of the implementation of a standardized scoring scale.

614
615 **stakeholders**

616 The various groups with an interest in the quality, governance, and operation of a certificate program,
617 such as the public, participants, certificate holders, employers, customers, clients, and third-party payers.

618
619 **stakes**

620 The degree to which inferences and/or other decisions have significant consequences for the
621 stakeholders in an assessment-based certificate program. **High stakes** are associated with substantial
622 potential for adverse consequences for the public, clients, patients, etc. Programs may also be high
623 stakes when participants' careers hinge on their success in accomplishing the intended learning
624 outcomes of an assessment-based certificate program.

625
626 **standardized scoring scale**

627 A clearly defined system for assigning numerical value, proficiency category, etc., to responses on an
628 assessment in order to achieve a structure that places all evaluations/scores on the same distribution and
629 permits comparison among evaluations/scores.

630
631 **subject matter expert (SME)**

632 An individual who, by virtue of position, education, training, and/or experience, is expected to have
633 greater-than-normal expertise or insight relative to a particular technical or operational discipline, system,
634 or process, and who has been selected or appointed to participate in the development, verification,
635 validation, delivery or evaluation of a course of education/training or an assessment.

636
637 **subjectively evaluated/scored assessment**

638 A type of evaluation/scoring system in which responses to questions, problems, demonstrations, work
639 products, etc., on an assessment are deemed as correct or incorrect, acceptable or not acceptable, etc.
640 using pre-established rubrics or scoring rules that involve subject matter expertise.

641
642 **summative assessment**

643 An assessment that is employed as an end-of-program measure of participants' accomplishment of
644 intended learning outcomes in an assessment-based certificate program.

645
646 **validity**

647 The degree to which accumulated evidence supports specific interpretations of all components of
648 an assessment-based certificate program (e.g., prerequisites, assessment).

649
650 **validation**

651 The accumulation of evidence to support the argument that the results of an assessment are useful for
652 intended inferences.