Quality Principles and Standards for Competency-Based Education Programs

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C-BEN Contributors

QUALITY STANDARDS TASK FORCE MEMBERS

Deborah Bushway, Ph.D.

CBE Consultant Lumina Foundation

Kevin Corcoran, MBA

Strategy Director Lumina Foundation

Laurie Dodge, Ph.D.

Vice Chancellor of Institutional Assessment & Planning,

Vice Provost, Brandman University

Frank Essien, MA Strategy Officer Lumina Foundation

Myk Garn, Ph.D.

Assistant Vice Chancellor for New Learning Models

University System of Georgia

Jillian Klein, MA

Associate Vice President, Government Affairs & Public Policy

Capella University

Charla Long, J.D.

Executive Director

Competency-Based Education Network

Marni Baker Stein, Ph.D.

Chief Innovation Officer

The University of Texas System

Alison Kadlec, Ph.D.

Facilitator

Senior Vice President, Director of Higher Education & Workforce

Engagement

Public Agenda

MEMBER INSTITUTIONS

Antioch University

Brandman University

Broward College

Capella University

Central New Mexico Community College

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A&M University-Commerce)

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Quality Principles and Standards for Competency-Based Programs

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These principles and standards were developed in response to a growing need for definitions of quality relating to competency-based education. Led by the C-BEN Quality Standards Task Force, this work drew from the Shared Design Elements and Emerging Practices of Competency-Based Education, and brought together leading program designers and system administrators from C-BEN institutions representing an array of models. This task force worked together over 2016 to create the first iteration of Quality Principles & Standards for Competency-Based Education Programs through an iterative and inclusive process, developing principles and standards universal enough to apply to all CBE programs, regardless of model variations. In the future, we envision these universal principles and standards will be augmented by additional stackable principles and standards based on research as well as model-specific, programmatic features.

Our aim with this work is to provide guidance to the field, allowing institutions to draw on these principles and standards to inform the design, implementation or scaling of high-quality programs. The principles and standards also can provide guideposts and assurances to policymakers and accreditors tasked with regulating this vibrant, and still emerging, field of practice. The process of developing these standards has been inclusive of both the entire C-BEN community and the wider field. Not only did C-BEN members from 30 institutions and four state university-systems offer feedback, but over a hundred other individuals from around the country provided guidance that informed this final version. In addition, a convening of roughly 40 C-BEN members and more than a dozen national experts and regulators was held in late 2016 to finalize the standards and begin ongoing work on performance indicators.

The goal of the task force was to provide principles and standards that are at once accessible and aspirational. This is achieved by the use of performance indicators developed to make the principles and standards multidimensional. The performance indicators for each of the principles are also being released in May 2017, but these should be considered works in progress. A similar online portal has been established to solicit feedback from the field on these indicators before they are finalized.

As evidence emerges regarding the efficacy of CBE program design, it is time to put a significant stake in the ground around quality. The future of the movement depends on our ability to do so. But C-BEN knows full well that the evolution of the field and the growth of the evidence base will require that these principles and standards be regularly revisited and updated to reflect the state of knowledge. This set of Quality Principles & Standards is intended to inform strong program design, ease accreditation, and build the confidence of regulators working to create safe space for responsible innovation. Ongoing refinement and revision from the field at-large will be necessary to ensure its' use and relevancy in building and refining quality competency-based education programs.

Key Definitions to Aid Understanding

Elements, principles, standards and performance indicators form the backbone for this work. This set of Quality Principles & Standards focuses on the program as the unit of analysis, and begins by articulating elements, principles, and standards of quality CBE program design and implementation.

For clarity's sake, the terms used in this document are defined below:

Element: The label or shorthand for the principle being described

Principle: A fundamental proposition that serves as the foundation for a system of belief, or behavior, or for a chain of reasoning

Standard: A level of quality or attainment, and an idea or thing used as a measure, norm or model in comparative evaluations

Performance Indicators: A measurement that describes how effectively an institution is achieving the principle and standards.

The eight elements of quality, with expanded principles and related standards, include:

- Demonstrated Institutional Commitment To and Capacity For CBE Innovation
- Clear, Measurable, Meaningful and Integrated Competencies
- Coherent Program and Curriculum Design
- Credential-Level Assessment Strategy with Robust Implementation
- Intentionally Designed and Engaged Learner Experience
- Collaborative Engagement with External Partners
- Transparency of Student Learning
- Evidence-Driven Continuous Improvement



Demonstrated Institutional Commitment To and Capacity For CBE Innovation

Demonstrated Institutional Commitment To and Capacity For CBE Innovation

TIER ONE — PRINCIPLE

In order to produce a high quality CBE program, the institution must build a foundational infrastructure in support of competency-based education. This includes the development of a CBE philosophy and commitment as it relates to the institution's mission, the design of the program structure, and the definition of appropriate supports for the program and its learners, including people, policy and process supports. The institution must also make appropriate financial investments in the program with the understanding that the returns on investment for CBE programs are generally longer term, yet recognizing that such long-term investments are often necessary both to achieve regulatory and accreditor compliance and to provide the learner with an adequate and appropriate support structure.

- A. The institution's senior leadership and board members understand the role that CBE programs play in furthering or enhancing the Institution's mission, and support the creation, continuous improvement and ongoing growth of CBE programming.
- B. The institution has defined its approach to competency-based education, including the degree of autonomy given to programmatic-level design and delivery.
- C. The institution has developed and adopted a faculty and staff model that would meet the unique needs of CBE program and complies with internal governance processes and controls while efficiently utilizing institutional resources.
- D. The institution has developed policies and procedures for CBE program(s) which support learning and the learner experience, while maintaining compliance with regulatory requirements.
- E. The institution maintains, across relevant academic and non-academic departments, sufficient administrative capability and commitment to manage and support competency-based education programs.
- F. The CBE business model, including the tuition structure, has been analyzed to determine feasibility and sustainability.
- G. The institution has evaluated technology needs to support the learner lifecycle (such as Student Information Systems, financial aid delivery systems and Learning Management Systems) and, where appropriate, made investments.
- H. The Institution has a plan for data collection and reporting regarding the learning experience and the efficacy of the CBE program. This data forms the basis for examination and discovery of needed improvements in areas such as learner performance across diverse groups, graduate success and employer satisfaction.



Criteria	Initial	Emerging	Developed	Highly Developed
Senior leadership support of CBE program	Institutional leadership (e.g., senior leadership and board members) have been informed of the CBE program at the institution, and the program administration and faculty may have a plan in place for program launch.	Institutional leadership (e.g., senior leadership and board members) have been informed of a CBE program at the institution (e.g., board meetings, academic leadership meetings, etc.) and initial action steps or plan is in place for program launch and sustainability.	Institutional leadership (e.g., senior leadership and board members) understands how the CBE program(s) support the institution's mission, and are committed to allocating required resources for the program. Clear action steps are in place for program sustainability including program design, growth plan, and continuous improvement plan.	The institutional leadership team understands the long-term ROI for CBE, and has approved a long-term action plan and made investments in the launch, scaling, and sustainability of the CBE program.
Institutional CBE philosophy	Institutional awareness and buy-in of CBE is isolated to a specific program and faculty/staff. There is currently no plan for improving awareness of CBE across the institution.	The institution is actively considering a CBE approach (e.g., analyzing the cost: benefit ratio relative to a customized program offering). Action steps are being implemented to arrive at a common understanding of and purpose of CBE and the assessment of student learning for the institution (e.g., faculty workshops).	The institution clearly articulates and agrees upon a common understanding of what CBE is and how the assessment of student learning takes place. On-going action steps are taken to improve institution-wide awareness and engagement (e.g., institutional focus or advisory group).	The institution actively shares their clearly articulated institutional definition of CBE both internally and with external partners. Focused conversations regarding this philosophy result in an increased shared understanding of the definition, and action steps are defined to implement institution-wide changes in support of this philosophy.
Faculty and support staff structure	A traditional faculty and staff model is in place. New models that support student learning in a CBE program are articulated. Action steps toward this new model and/or specialized roles (e.g., assessment specialist, instructional designer, coach) have been outlined.	Faculty and staff position descriptions reflect an intentional model designed to support the CBE student effectively.	Student needs for support are well understood, and faculty and staff models reflect those needs. Faculty/staff identified for specialized roles are aware of and agree on their roles and responsibilities.	The institution continues to refine the faculty and support staff structure to support the CBE program(s) based on data, including student satisfaction data and student performance data.
Institutional CBE policies, processes & regulatory compliance	Policies & processes to implement policies (e.g., attendance, tuition and fees, transfer policies) required to support the CBE program are being considered. Key internal stakeholders (e.g., Registrar, Business Office, Provost's Office, Technology) and external stakeholders (e.g., accrediting body approvals, federal and state regulations) have been identified and an action plan is in progress to meet student and program needs.	At least half of the relevant policies & the attendant processes (e.g., attendance, tuition and fees, transfer policies, credit hour equivalencies, SAP) to support the CBE program have been revised. Key internal stakeholders (e.g., Registrar, Business Office, Provost's Office, Technology) and external stakeholders (e.g., accrediting body, federal legislation) are engaged in the ongoing revision process. The institutions is actively pursuing regulatory approvals. An action plan is in progress to meet student and program needs.	Policies & processes (e.g., attendance, tuition and fees, transfer policies, competency master assessment, satisfactory academic progress) are established (i.e., handbook) and in practice to meet student and program needs, are unique to the institution's CBE program. The institution has secured program approval for its respective CBE program. Key faculty/staff are working to monitor program compliance with these approvals.	Institutional policies & processes which support CBE programs are clearly communicated, including tuition and fees, transfer policies, and satisfactory academic progress. These policies are continuously refined as changes in the program, environment and/or program performance are noted.



PERFORMANCE INDICATORS (CONTINUED)

Criteria	Initial	Emerging	Developed	Highly Developed
Sufficient capability & commitment to manage & support CBE program.	Institution has identified the resources needed to support students effectively in their CBE program, including faculty, staff, IT, and other administration.	Institution has a realistic and viable plan to supply the required resources as the CBE programs launches and grows.	The institution has approval for the resources required to implement their plan to supply the required resources as the CBE programs launches and grows.	Institution has integrated the plan for resources with the business model and is committed to incremental resource addition/modification as the program scales.
Business model	A business model has been discussed with key internal stakeholders (e.g., Chief Financial Officer, Provost's Office, Board Members). A hypothetically feasible and sustainable business plan has been created.	A business model has been discussed with key internal stakeholders (e.g., Chief Financial Officer, Provost's Office, Board Members). A feasible and sustainable business plan has been created and approved by key internal stakeholders.	The institution is monitoring the performance of the CBE program against the primary levers identified in the business plan for the CBE program. Adjustments are made as needed to assure sustainability of the CBE program.	The institution has adequate data to continuously analyze its CBE business model, including the tuition structure, and made structural, pricing and is willing to share what it has learned with other CBE institutions. The CBE program is financially self-sustaining.
IT infrastructure	Technology systems (e.g., LMS, SIS, CRM, financial aid billing) have been evaluated to plan for program functionality.	The institution has identified current technical and systems processes, researched and created a plan to use current systems and integrate new systems (including decisions about whether to build or "buy" capabilities) based on targeted needs. Initial changes have been made.	The institution has reviewed all technology systems in place to support the CBE student ecosystem and, where appropriate, made investments.	The institution has developed an integrated set of technology systems to support the CBE student ecosystem. They are active in sharing their process with other CBE institutions, and use data to improve their solutions.
Continuous improvement	Program success measures have been defined and key performance indicators have been identified for measurement (e.g., program objectives, learner performance across diverse groups, enrollment, graduate success, employer satisfaction).	Program success measures have been defined and key performance indicators have been identified for measurement (e.g., program objectives, learner performance across diverse groups, enrollment, graduate success, employer satisfaction). A plan for data collection (e.g., faculty/staff effort, student success, cost model) has been outlined.	Program success measures are clearly defined and agreed upon by the faculty. A data collection process is established. Data is used to monitor program effectiveness and efficiency as well as inform strengths and needed improvements across a variety of areas (e.g., program objectives, learner performance across diverse groups, enrollment, graduate success, employer satisfaction).	The institution has adopted a sustainability plan agreed upon by institutional leadership as well as program faculty and staff. The institution has dedicated resources to the continuous improvement of the CBE program. The institution also shares learnings with the broader CBE community.





Clear, Measurable, Meaningful and Integrated Competencies

Clear, Measurable, Meaningful and Integrated Competencies

TIER ONE — PRINCIPLE

Each competency is explicitly stated and provides unambiguous descriptions of what a learner must master to complete a program of study. Each competency includes the theory and application of theory required for mastery at the appropriate level for the credential being earned. Each competency is capable of being connected to content and learning activities designed to support learners in developing proficiencies required by the program to award a credential. Each competency is measurable and can be reliably and validly assessed.

- A. Competencies represent explicit knowledge, skills, abilities and intellectual behaviors, balancing theory and application in a demonstration of mastery.
- B. Competencies are co-constructed with input from diverse communities such as employers, expert practitioners, subject-matter experts, faculty, learners, advisory committees, recent graduates, and professional/licensing bodies.
- C. Individual competencies are relevant, current, and accurately depict the needs of employers and society.
- D. Competencies are capable of anchoring, specifying and guiding the learner experience, including curricular design, development of instructional content, activities, remediation offerings and the assessment strategy.
- E. Individual competencies are aligned to cognitive levels of learning using recognized taxonomies (such as the DQP or Bloom's) and/or industry standards.



Criteria	Initial	Emerging	Developed	Highly Developed
Competencies integrate knowledge, skills, abilities and intellectual behaviors required for success.	Credential level competencies are defined	Competency definitions explicitly include knowledge, skills and abilities as well as intellectual behaviors required.	Credential level competencies definitions also include application and clearly state what is required for demonstration of competency.	Data is gathered regarding student performance on each of the competencies. External validation data (from employers, licensing exams, etc) are used to strengthen student performance.
Competencies are co-constructed with input from diverse stakeholders.	Input from an advisory group is integrated into the competency development process.	Competencies are reviewed by experts in the field for relevance and clarity. Tools such as the Degree Qualifications Profile (DQP) are used to ensure appropriate level of rigor for the credential being earned.	Stakeholders (such as employers, expert practitioners, subject-matter experts, faculty, learners, advisory committees, recent graduates, and professional/licensing bodies) participate in defining credential level competencies.	Process is in place to continuously review competencies as discipline evolves over time, revisions to competencies. Employers of graduates provide feedback on whether competencies yield better prepared graduate.
Individual competencies are relevant, current, and accurately depict the needs of employers and society.	Individual competencies are defined to reflect current needs.	Individual competencies are aligned to stated employer and community needs.	Individual competencies reflect the current assessed needs of both employers and the society in which the student lives.	The institution has a process through which it assesses the changing needs of employers and society in order to maintain the currency, relevancy and accuracy of the CBE program's stated competencies.
Competencies anchor, specify and guide the learner experience.	Competencies are defined clearly and specifically, offering the base for the learning journey for students.	Competency framework is well articulated and defined so that the learning journey can support competency development.	The learning journey, including assessment, is well integrated with and aligned to the competencies.	There is a continuous improvement model in place so that competencies that are unclear or ambiguous are improved, supporting a more clear pathway to the credential for learners.





Coherent Program and Curriculum Design

Coherent Program and Curriculum Design

TIER ONE — PRINCIPLE

Competency-based education programs use an intentional and transparent approach to curricular design that provides a learner with the full range of competencies preparing the learner for post-graduation demands. These programs intentionally seek to reduce racial, cultural, socio-economic, gender and other potential bias in their design, delivery and implementation. This academic model, which provides clear pathway(s) to completion, builds a unified body of knowledge leveraging frameworks, disciplines, standards, national norms, workforce and societal needs. Learners are at the core of the program's design, and the logic of the program (as well as its associated assessment strategy) supports flexibility in pacing. The curricular design ensures that the level and complexity of the competencies are congruent with achievement required for the academic level of the credential.

- A. The set of competencies is clearly specified and provides easy-to-understand pathway(s) for what the learner must know and be able to do in order to progress in and complete a credential.
- B. The program encompasses an integrated curricular sequence that scaffolds learning at appropriate cognitive levels leading to mastery and affords the learner flexibility in time spent to reach mastery.
- C. The set of credential-specific competencies, chosen through a co-constructed process, represent the complete taxonomy of the knowledge, skills, abilities and intellectual behaviors required by academic, workforce and societal needs for a prepared and proficient credential holder.
- D. Learners can articulate what they should know and be able to do upon completion of the program.
- E. Learners have meaningful access to faculty subject matter experts who play an active, central role in the design and delivery of the program.
- F. Learning environments, content, communications, activities and assessments are accessible to and inclusive of each learner, based on identified needs.
- G. Learners are offered varied learning exercises, activities, and experiences to promote learner engagement and to provide multiple opportunities for development of competency mastery.
- H. The program is designed to support individual learners with personalized learning pathway(s) as they develop and master competencies.

Criteria	Initial	Emerging	Developed	Highly Developed
Set of competencies is clearly specified.	The credential-level competencies are clearly and openly articulated for learners, faculty, staff and other stakeholders.	The pathway(s) for credential completion is clear and shared with learners, faculty, staff and other stakeholders.	Along with credential-level competencies and a clear pathway, it is clear how learners progress toward and complete a credential, even when they may struggle with a component.	Data is collected regarding learner progression through the pathways, and curricular improvements are made wher barriers are identified.
Integrated curricular sequence at appropriate cognitive level for credential.	The competencies are attained & demonstrated throughout an integrated curriculum that reflects the cognitive expectations for the credential being awarded.	The integrated curriculum scaffolds learning along the completion pathway leading to demonstration of competency at the appropriate cognitive level of the credential.	The program level integrated curriculum affords the learner flexibility in time spent to reach mastery while scaffolding learning at the appropriate cognitive level for the credential.	Data is collected regarding learners' rate of progression through the curriculum and to validate the learning at the appropriate cognitive level in order to remove barriers, offer support and to inform-continuous improvement of th curriculum.
Competencies represent the complete taxonomy of knowledge, skills, abilities and intellectual behaviors required for success.	The credential-level set of competencies is comprehensive and cohesive, making sense for the credential being granted. When appropriate, the set of competencies is validated against established tools such as the Degree Qualifications Profile (DQP).	The credential-level set of competencies has been reviewed and validated by stakeholders such as employers, community leaders and faculty for representing a complete taxonomy of required competencies.	The credential-level set of competencies are co-constructed with stakeholders to represent the complete taxonomy of the knowledge, skills, abilities and intellectual behaviors required by academic, workforce and societal needs for a prepared and proficient credential holder.	The set of credential-specific competencies is validated using employer data as well as other achievement data, and changes to this set of competencies are made based on data, changing external requirements and learner performance following credentia completion.
Learners can articulate competencies.	Learners can articulate what they should know and be able to do upon completion of the program.	Learners can describe the competencies for the credential for which they are studying.	Learners are able to interpret their own data to understand their progression toward "knowing" and "being able to do" the defined competencies upon graduation.	At graduation, learners are able to demonstrate what the know and can do.
Learner access to faculty expertise.	Faculty are readily available to learners as they progress through the program.	Learners have meaningful access to faculty subject matter experts who play an active, central role in the design and delivery of the program.	Systems and processes are built to support learner access to faculty (such as "alerts" for faculty, clear response time expectations, technology-enhanced solutions and others).	Engagement is monitored to ensure that meaningful access to faculty is truly available.
Inclusive learning environments, content, communications, activities and assessments.	The learning environments, content, communications, activities and assessments are all designed to be equitable for a diverse set of learners, including racial, socioeconomic, gender, religious, learning ability/styles and disability.	The learning environments, content, communications, activities and assessments are reviewed by experts to ensure inclusivity for diverse learners, including racial, socioeconomic, gender, religious, learning ability/styles and disability.	Learning environments, content, communications, activities and assessments are accessible to and inclusive of each learner, based on identified needs. The accessibility and inclusivity is audited by experts in each area of diversity.	Learner progression and completion of the credentials is tracked, reported and monitored by meaningful areas of diversity (such as race, class, gender, disability, etc.), and improvements are made to the curriculum and learner support systems where discrepancies are discovered.



PERFORMANCE INDICATORS (CONTINUED)

Criteria	Initial	Emerging	Developed	Highly Developed
Varied opportunities promote learner engagement and competency mastery.	Learners have multiple opportunities to develop mastery of the defined competencies.	Learners have multiple opportunities to develop mastery of the defined competencies and there are plans to build opportunities for learner engagement.	Learners are offered varied learning exercises, activities, and experiences to promote learner engagement and to provide multiple opportunities for development of competency mastery.	Data is gathered about the relative efficacy of the opportunities to develop mastery as well as regarding learner engagement, and the data is used to enhance and improve the learning experiences offered.
Personalized learning pathways	Pathways to credential completion are developed based on the needs of each learner.	Each learner understands the pathway to earning the credential for which s/he is registering.	The program is designed to proactively support individual learners with personalized learning pathway(s) as they develop and master competencies.	In addition, data is collected and monitored regarding the learners' progression through various pathways. This data is used to personalize the learner experience and to improve pathway articulation and support.





Credential-Level Assessment Strategy with Robust Implementation

Credential-Level Assessment Strategy with Robust Implementation

TIER ONE — PRINCIPLE

Authentic assessments and their corresponding rubrics are key components since CBE is anchored by the belief that progress toward a credential should be determined by what learners know and are able to do. The overarching assessment strategy is comprised of assessments designed both to inform the learning journey (often referred to as "assessment for learning" or formative assessment) and to validate mastery (often referred to as "assessment of learning" or summative assessment). In CBE models, assessments are intentionally aligned to competencies and cognitive levels, and use a range of assessment types and modalities to measure the transfer of learning into varied contexts and mastery of competencies. Authentic assessment design and use follows best practice for assessment professionals.

- A. Authentic assessments are built within and aligned to an overarching assessment strategy for the competency being measured and the credential being earned.
- B. The assessment strategy clearly articulates how the set of assessments supports the learning journey for students, matches the cognitive level of the competencies being demonstrated and determines mastery at the appropriate academic level.
- C. The set of authentic assessments is designed to provide learners with multiple opportunities and ways to demonstrate competency, including measures for both learning and ability to apply (or transfer) that learning in novel settings and situations.
- D. The assessment strategy and each of the assessments and their corresponding rubrics equitably measure learning outcomes across diverse student groups, while guarding against bias in formative and summative assessment.
- E. Faculty understand the faculty role in the overarching assessment strategy for the credential and are trained in and can articulate the critical role played by each assessment in validating mastery of a competency.
- F. Each authentic assessment is transparently aligned to program competencies and its corresponding rubric, is rigorous, has clear and valid measures and is approved by faculty and assessment professionals
- G. Formative assessments serve as a tool for learning providing feedback for reflection and refinement while also offering a feedback loop that is timely and appropriate to the competency and intent of the assessment.
- H. Summative assessments' ability to measure application or the "can do" aspect of a competency is validated by a subject matter expert, ideally one external to the program design team.
- I. The assessment design accommodates personalization for learners by offering flexibility in when assessments will be administered, often supported by technology.
- J. The timeliness of feedback from assessments enables learners to proceed with the absolute minimum of delay. Technology is used wherever possible to facilitate and expedite the timeliness of feedback.



Criteria	Initial	Emerging	Developed	Highly Developed
Authentic assessments are built within and aligned to an overarching assessment strategy.	An assessment strategy is clearly articulated and authenticity is defined.	Assessments (designed to measure both theory and ability to apply the theory) are authentic and transparently aligned to competencies.	Assessments are performance based when appropriate for the competencies being assessed, and aligned to requirements in the discipline & profession as well as to the overarching assessment strategy.	External SMEs review each assessment for relevance & clarity. These reviews inform improvements in the assessments. The assessment strategy is transparent to students and other constituents.
Assessments match the cognitive level of the competencies being demonstrated and determine mastery at the appropriate academic level.	Assessments offer all students the opportunity to demonstrate mastery required for the credential being granted (certificate, AA, MS).	Assessments are designed to reflect the cognitive level of the competency (e.g.: multiple choice exams for "remembering" and case studies for "applying").	Assessments have validity data to support claims about cognitive level being measured. Performance data is examined for equity concerns as well.	Assessments have validity data to support claims about cognitive level being measured. These data include equity across diverse groups and are used for continuous improvement of the assessments.
Assessments provide learners with multiple opportunities and ways to demonstrate competency.	Learners are given more than one opportunity to demonstrate competency.	Learners are offered more than one modality (type of assessment) and more than one opportunity to demonstrate competency.	The set of assessments is designed to provide learners with multiple opportunities and ways to demonstrate competency, including measures for both learning and ability to apply or transfer that learning in novel contexts.	Each competency is assessed through a diverse set of opportunities, each of which is valid and reliable, and the set of which includes measures for both learning and ability to apply or transfer that learning in novel contexts. Assessments are personalized based on student profile and needs.
Assessments equitably measure learning outcomes across diverse student groups, while guarding against bias of structure and/or accessibility.	Assessments are reviewed by experts in diversity for any embedded cultur- al biases or language. Delivery methods are ADA compliant.	The institution has an established position regarding equity in assessment & faculty are trained in bias issues.	Baseline data regarding assessment bias (particularly bias against race, economic status, gender and ability), assessment performance and validation of rubrics and assessors is established.	Data is gathered, analyzed and reviewed for equity in a transparent process. Data is analyzed to reveal gaps in learning outcomes as well as bias in the assessment tool or grading practices. Analyses result in improvements in learning pathways as well as assessment tools/approaches as needed.
Faculty understand the role of each assessment in validating mastery of a competency.	Faculty can articulate the assessment strategy.	Faculty can articulate how each assessment aligns to competency definitions.	Faculty can articulate how each assessment plays a critical role in validating mastery of a competency.	Faculty can articulate how each assessment plays a critical role in validating mastery of a competency and participates in a continuous improvement process for assessments with which they work.
Authentic assessments aligned to program competencies and are rigorous, and are approved by faculty and assessment professionals	The curricular map aligns each assessment to related competencies. The institution has a definition of authentic assessment.	Each assessment is monitored for its alignment to competencies, its level of "authenticity" and is approved by faculty.	Each assessment is monitored for its alignment to competencies and its level of authenticity. Validity and reliability data are transparently reported and reviewed by faculty/assessment professionals.	Validity and reliability data is gathered & analyzed regarding validity of assessments across diverse groups of students - this data (along with other relevant data) is used for continuous improvement of the assessments.

PERFORMANCE INDICATORS (CONTINUED)

Criteria	Initial	Emerging	Developed	Highly Developed
Each assessment is authentic, able to assess what credential completers know and are able to do, and in what settings and situations.	Assessments measure competency in a manner that approximates the way that the competency must be demonstrated in the "real world". The knowledge, skills and intellectual behaviors comprised in a competency are clearly articulated.	In addition, assessments measure both knowledge and ability to apply that knowledge, based on the level of the credential.	In addition, assessments are performance based (when appropriate) and aligned to requirements in the discipline & profession. Assessments are equally valid for diverse groups of learners.	On a regular basis, external SMEs review each assessment for relevance & clarity. These reviews (along with other relevant data) inform improvements in the assessments.
Formative assessments serve as a tool for learning, offering a feedback loop that is timely and appropriate to the competency.	Formative assessments are aligned to learning outcomes, and assessment results offer direction for further learning.	In addition, the institution has established expectations regarding feedback timing and quality.	Students receive recommendations for learning resources to support ongoing learning.	In addition, data is collected and monitored regarding the timeliness and quality of feedback offered on assessments. This data is used to identify best practices and inform improvement.
Summative assessments' ability to measure application or the "can do" aspect of a competency is validated by a subject matter expert, ideally one external to the program design team.	Every summative assessment measures application of the aligned competency, as well as knowledge.	Internal SMEs review each summative assessment for its ability to authentically and effectively measure application.	Data regarding reliability and validity are gathered, analyzed and shared with faculty for each summative assessment.	In addition, each summative assessment's ability to measure application or the "can do" aspect of a competency is validated by a SME external to the program design team.
Flexibility of timing is built into the assessment design to accommodate personalization.	Each student understands the path for assessment of competency for his/her program and can access assessments as appropriate.	Student pathways for both formative and summative assessments are clear yet flexible.	Assessments are personalized, based on individual student experience and need.	Data regarding previous performance and readiness to demonstrate competency is used to personalize assessment pathways.
The timeliness of feedback from assessments enables learners to progress efficiently. Technology is used wherever possible to facilitate and expedite the timeliness of feedback.	Clear institutional expectations about grading turn-around time are established.	Faculty support is in place to enable compliance with institutional expectations regarding feedback timing and quality.	Student support is available if feedback is unclear or ineffective so that students can progress efficiently.	Technology is leveraged to notify faculty regarding new assessments requiring feedback, to track completion of feedback and to alert students that feedback is complete and ready for review.





Intentionally Designed and Engaged Learner Experience

Intentionally Designed and Engaged Learner Experience

TIER ONE — PRINCIPLE

CBE professionals comprehensively understand the strengths and the needs of the targeted learner population, and programs are designed with those needs at the core of all decisions, processes, and systems. These programs offer proactive and personalized support for learners, from the point of determining program fit through alumni relations. Faculty and staff are invested in and involved with understanding and improving the entire learner lifecycle by designing, guiding and supporting the learning journey. Processes to facilitate & encourage meaningful interaction are also designed into the learning journey. A full array of wraparound learner services and social supports, appropriate to the learners being served, are offered by CBE professionals through a wide range of roles and responsibilities.

- A. The institution invests in deeply understanding the learners to be served by their CBE program(s), and this understanding is the foremost consideration when structuring the work of CBE professionals (faculty and staff) into specific roles and responsibilities.
- B. The program is sufficiently resourced with faculty and staff to meet the needs of the learner. Faculty and staff roles are designed to provide differentiated support to a diverse range of learners that leverages the individual talents, strengths and competence of the faculty and staff.
- C. Faculty and staff performance metrics are established and monitored, in part, on the ability of the team to support learners, regardless of race, ethnicity, economic status or ability, throughout the learner experience.
- D. Clear expectations are effectively communicated with the learner regarding institutional policies, structure and expectations of the program, and tuition and fees.
- E. Learners have access to and proactive engagement with subject-matter expertise, robust resources, tools and supports to be successful in acquiring and demonstrating the knowledge, skills, and abilities, required for successful completion of the program.
- F. Opportunities for engagement with peers, faculty, staff, and employers, who reflect the diversity of the learner population, are provided throughout the learning journey.
- G. Leveraging technology-enabled systems and processes when possible, faculty, staff and learners proactively monitor data metrics to ensure the learner is fully informed, engaged and performing as anticipated throughout the learner lifecycle.



Criteria	Initial	Emerging	Developed	Highly Developed
Deep understanding of learners is foundation of program design.	The target learner population for the CBE program(s) is well defined and described.	The institution incorporates the learners' needs as the CBE program is designed and delivered.	The role definitions of staff and faculty in the CBE program are based on well understood & clearly articulated learner needs & strengths.	The understanding of learner needs & strengths is continuously refined as data is gathered through the program. Roles in the CBE program are refined based on this new information.
The CBE program is sufficiently resourced and leverages the talents of involved faculty & staff to support student success.	The knowledge, skills and attitudes of faculty & staff in the CBE program are clearly described.	The needs of all students in the CBE program correlated with the talents of the faculty and staff are effectively deployed to respond to those needs.	Data is gathered regarding the efficacy of the program in meeting the needs of diverse sets of students in the CBE program (race, gender, SES, etc.), and improvements are made based on the data (for example, faculty and support staff are matched to learners based on data).	External peers and exemplars are used to review and recommend performance improvements.
Staff & Faculty performance metrics are transparent and reflect support for learners, regarding of race, ethnicity, economic status or ability.	Faculty & staff job expectations are clearly defined and monitored.	Faculty & staff performance metrics are defined, based on the need to support a diverse set of students.	Faculty and staff performance metrics are established and monitored in partnership with diverse learner groups, in part, on the ability of the team to support learners, with specific attention to race, ethnicity, economic status or ability, throughout the learner experience.	Data is gathered, monitored and reported regarding the ability of faculty and staff to meet the performance metrics as well as the impact of faculty/staff performance on learner success across race, ethnicity, economic status and ability. Data is used to improve learner experience.
Policies, structure and other program expectations are clearly communicated to learners.	Policies & expectations (that are compliant with accreditor and regulatory requirements) for the CBE program are clearly articulated and available for review by learners.	Policies, structures and expectations for learners in the CBE program are defined and reviewed with the learner prior to matriculation in the program.	Clear expectations are communicated in multiple ways (including required orientation, touchpoints each term and advisor conversations) with the learner regarding institutional policies, structure and expectations of the program, transfer, withdrawal, and tuition/fees.	Information is gathered from learners (including by tracking complaints or other learner satisfaction input) regarding the clarity of these communications, and improvements are made in the policies and/or communications as needed.
Learner access to faculty expertise.	Faculty are available for student engagement, and reach out to learners proactively.	Faculty reach out to learners with discipline/subject matter content, recommend additional learning supports and are available for additional support as needed.	Learners have access to and proactive engagement with subject-matter expertise, robust resources, tools and supports to be successful in acquiring and demonstrating the knowledge, skills, and abilities, required for successful completion of the program.	Systems and processes are built to support learner access to faculty (such as "alerts" for faculty, technology enabled contact between faculty & learners) and other learning resources, such as adaptive and personalized technologies.
Engagement with a learning community is provided throughout the learning journey.	Learners can interact with each other as well as with faculty and staff.	The institution creates various pathways for learners to connect with peers as well as faculty and staff for support of their learning.	Meaningful opportunities for engagement with peers, faculty, staff, and employers, who reflect the diversity of the learner population, are provided throughout the learning journey.	Learner feedback regarding the efficiency and efficacy of engagement opportunities is used to improve learner connections with their larger learning community.



PERFORMANCE INDICATORS (CONTINUED)

Criteria	Initial	Emerging	Developed	Highly Developed
Learners' engagement & progress toward credential completion is monitored.	Learners' progress toward competency demonstration can be monitored.	Faculty, staff & learners are all aware of the learner's engagement and progress toward credential.	Leveraging technology- enabled systems (such as customer relationship management – CRM- tools) and processes when possible, faculty, staff and learners proactively monitor data metrics to ensure the learner is fully informed, engaged and performing as anticipated throughout the learner lifecycle.	The data gathered regarding learner progression and completion is used to 1) refine the learning experience; and 2) reach out to learners to support their ongoing progress in a personalized manner.





Collaborative Engagement with External Partners

Demonstrated Institutional Commitment To and Capacity For CBE Innovation

TIER ONE — PRINCIPLE

Institutions strategically determine and secure the commitment of multiple external partners to inform and to support achievement of the program's purpose and the institution's equity goals. External partners are meaningfully engaged in the design, delivery, and evaluation of the CBE program. These partners work collaboratively with the institution offering the CBE program to inform and validate its competencies, its curriculum and to ensure the authenticity of its assessments. The result is a relevant, transparent credential and authentic learning experience that is endorsed and trusted by the external partners as well as by its learners.

- 1. In collaboration with faculty and staff, external partners offer their own expertise and resources, are invested in and an integral part of the program design, delivery and evaluation processes.
- 2. Faculty, staff, learners and external partners regularly communicate on substantive matters, keeping each other informed of the latest developments.
- 3. Faculty, staff, learners and external partners share their experiences and insights actively participating in, and sharing information with, researchers, discipline and career networks, and other professional organizations.
- Faculty and staff implement necessary programmatic changes to stay current with industry trends, often based on information learned through their substantive communication with external partners.
- 5. External partnerships are cultivated to provide real life learning, training, assessment, internship and employment opportunities.
- 6. External partners are chosen based on their alignment to program's purpose, the institution's equity goals, or field and workforce needs. When no pre-existing connections exist, faculty and staff are able to form these necessary relationships.

Criteria	Initial	Emerging	Developed	Highly Developed
External partners are invested in the CBE program's success.	External partners can communicate the rationale for offering the CBE program.	The external partners have reviewed and offered feedback on the program's competencies, assessments, learning activities and requirements.	In collaboration with faculty and staff, external partners are an integral part of the program design, delivery and evaluation processes.	The external partners provide the institution with data regarding graduates' performance on the job, allowing the institution to continuously improve the competencies, assessments and other components of the program.
External and internal partners communicate about new developments and program changes are implemented to maintain currency in the field.	External partners are asked for input on any external changes that could impact the program.	Standing and regular meetings are held in which external and internal partners consider the success and efficacy of the CBE program, from each partner's lens.	Faculty, staff, learners and external partners work collaboratively to update, refresh and improve the relevancy of the competencies attained and demonstrated by learners in the CBE program.	Data is gathered (from graduates, external partners and other sources) and widely disseminated by both internal and external partners regarding the efficacy of the CBE program in preparing learners for relevant jobs and life skills (including responsiveness to industry trends and other external changes), and improvements are made based on the data.
External partners provide components of the learning journey.	External partners actively encourage graduates of the CBE program to apply for employment upon credential completion.	External partnerships are cultivated to provide real life learning, training, assessment, internship and employment opportunities.	Formal agreements are established with external partners to provide faculty expertise and onsite experiences (such as internships or apprenticeships) as a component of the CBE program.	Information is gathered from external partners regarding learner performance in internships, training opportunities and ultimately employment, and this data is used to improve curriculum and learning journey.
External partners are selected based on institutional and programmatic mission and goals.	Possible external partners are identified based on institution's mission and goals for the CBE program. These may or may not include existing partnerships.	Where new partnerships are required, institutions work to establish shared goals and effective partnerships.	External partners are chosen based on their alignment to program's purpose, the institution's equity goals, or field and workforce needs. When no pre-existing connections exist, faculty and staff are able to form these necessary relationships so that the partnerships are mutually beneficial.	The external partner relationships are evaluated in terms of the institution's mission and programmatic goals as well as the external partners' goals. Any gaps are identified, new opportunities are articulated and efforts to establish a working partnership are initiated.





Transparency of Student Learning

Transparency of Student Learning

TIER ONE — PRINCIPLE

One of the central differentiators of CBE programs is the transparency of learning required to earn a credential. This means that the competencies and their alignment, the pathway to mastering those competencies, the assessment methodologies and the performance requirements for successful demonstration of competency are clearly articulated to learners and all other stakeholders. Transcripting practices make demonstrated competencies transparent to learners, faculty, staff, employers, transfer institutions, accreditors and regulators, and are often in digital form. Transcripts are designed to support portability and transferability to non-CBE environments and include an "extended or comprehensive record" with details about the learner's accomplishments.

- A. The competencies required to earn a credential are clearly and openly articulated to learners, faculty, staff and external partners.
- B. The alignment of competencies, content, learning activities/experiences, and competency demonstration assessments is visible to all learners and stakeholders.
- C. Student progression toward competency mastery and credential completion is visible throughout the learning journey to the learner, faculty and staff.
- D. The alignment of credential's competencies to any external requirements (licenses, transfer requirements, certifications, employer needs) is accurately and clearly communicated.
- E. The institutional transcripting policy and process should be designed to communicate what graduates can do (beyond course listings and grades), expressed in ways understandable and relevant to an expanded community of stakeholders utilizing the input and engagement of learners, transfer institutions, graduate schools and employers.

Criteria	Initial	Emerging	Developed	Highly Developed
Required competencies are clearly articulated to all constituents.	The competencies required for a credential are defined. "Course" level competencies are shared in syllabi.	The competencies required for a credential are defined and shared with learners, faculty and staff.	The competencies required to earn a credential are transparently articulated to learners, faculty, staff and external partners.	Competencies required for a credential are transparently articulated to learners, staff, faculty, external partners and clearly transcribed for use by other institutions as needed.
Alignment of the curriculum and competencies is visible.	Competencies, learning experiences and assessments are aligned.	The alignment of competencies, content, learning activities and assessments is captured in a reportable format.	The alignment of competencies, content, learning activities/ experiences, and competency demonstration assessments is visible to all learners and stakeholders.	Curricular maps are technology enabled and visualized so that any interested person can understand the alignment of competencies, learning experiences and assessments.
Progression toward credential completion is visible to stakeholders.	Learner progression can be monitored and reported on.	Learner engagement and competency demonstration is episodically captured, monitored and reported out for learners and faculty/staff.	Learner progression toward competency mastery and credential completion is readily visible throughout the learning journey to the learner, faculty and staff.	Technology (ie: a progression dashboard) is used to enable real time visualization of the learners' progression through the aligned assessments and competencies for all stakeholders.
Credential competencies' alignment to external requirements is communicated.	Credential competencies are aligned to appropriate external requirements.	External requirements that map to the credential are well understood, monitored and aligned to the credential so that internal and external stakeholders can describe the alignment.	The alignment of credential's competencies to any external requirements (licenses, transfer requirements, certifications, employer needs) is accurately and transparently communicated.	Visualizations of the alignment of external requirements and the credential's standards are developed and available for sharing (often technology enabled) with all interested parties.
Transcripts communicate competencies and support learners' needs for transfer, admission to other institutions and employment.	Competencies for the credential available for review upon request or as an attachment to the transcript.	The institutional transcript reflects the competencies for the credential as well as each learner's demonstration of competency related to the earned credential.	The institutional transcripting policy and process should be designed to communicate what graduates can do (beyond course listings and grades), expressed in ways understandable and relevant to an expanded community of stakeholders utilizing the input and engagement of learners, transfer institutions, graduate schools and employers.	The transcript utilizes visualization and e-portfolio technology to communicate the richness of the competencies demonstrated in earning the credential while also offering a "cross-walk" to credits and grades, if needed for learner's purposes. This transcript is electronically shareable and portable.





Evidence-Driven Continuous Improvement

Evidence-Driven Continuous Improvement

TIER ONE — PRINCIPLE

A evidence-driven, continuous improvement methodology is an essential dimension of competency-based education. To ensure program effectiveness, data is collected and analyzed at regular intervals during the program and post-completion. Data are reported and used to inform learners and faculty, identify and prioritize improvements, evaluate and refine assessment strategy and implementation, monitor equitable learner achievement across diverse groups, optimize learner supports to impact program persistence and completion, and enable external validation of learning. Where performance gaps are identified, institution actively implements and monitors solutions.

- A. The institution has adopted continuous improvement processes for CBE program(s) and is committed to sharing data and discoveries with the CBE community.
- B. The CBE program has agreed upon performance goals (including equitable learner outcomes) and has effective and regular approaches for monitoring, measuring, surveying, analyzing, reporting and acting on performance data (including specific learner outcomes).
- C. The CBE program has a systematic process for improvement based on data and feedback from learners, faculty, subject matter experts, and external partners, and has allocated appropriate resources to support the work.
- D. Other related data such as measurements of post-programmatic outcomes and the enduring value of earned competencies in the knowledge marketplace are monitored to inform larger shifts in the design of the competencies and credential being offered.



Criteria	Initial	Emerging	Developed	Highly Developed
Continuous improvement processes have been adopted for the CBE program.	The institution conducts periodic reviews of the CBE program.	The institution has set goals and metrics for the CBE program, allowing it to measure and identify needed improvements in the program.	The institution has adopted continuous improvement processes for CBE program(s) and is committed to sharing data and discoveries with the CBE community.	The continuous improvement process results in a stronger, more effective CBE program, as evidenced by stakeholder satisfaction (including employers, learners and faculty) as well as strong learning outcomes.
CBE program has performance goals and effective measurement & reporting tools.	Performance goals and metrics are set for the CBE program.	The institution can and does measure the performance of the program against the defined goals and metrics, including benchmarks defined from relevant peers.	The CBE program has agreed upon performance goals (including learner outcomes across diverse populations) and has effective and regular approaches for monitoring, measuring, surveying, analyzing, reporting and acting on performance data (including specific learner outcomes).	Data is gathered and shared regarding the performance of the CBE program, interventions for improvement are designed and implemented, and data is reported and shared regarding the efficacy of the intervention.
Program has a systematic process for improvement based on feedback.	Feedback is gathered from learners, faculty, and external partners regarding the CBE program.	The CBE program uses multiple approaches to gather input from learners, faculty, subject matter experts, and external partners, and synthesizes this information into actionable reports, which are shared.	The CBE program has a systematic process for improvement based on feedback from learners, faculty, subject matter experts, and external partners, builds a roadmap for continuous improvement based on this information, and has allocated appropriate resources to support the work.	The CBE program maintains an active relationship with its graduates, and this relationship enables the program to gather feedback from graduates as well as current students. This feedback is synthesized, reported and made available to all constituents. This information, along with the continuous improvement plan, is used to inform the institution's budgeting and project planning processes, basing future iterations and innovations in the program on this roadmap for continuous improvement.
External data are also monitored and integrated into consideration for program improvement.	Relevant external sources of information for improvement of the CBE program are identified.	A data-gathering plan is used to collect the information identified in the emerging category.	Other related data such as measurements of post-programmatic outcomes and the enduring value of earned competencies in the knowledge marketplace are monitored to monitor and react to larger shifts in the design of the competencies and credential being offered.	Data is gathered from employers, graduates and other stakeholders regarding the ongoing relevance of the programs' competencies. This information is used to realign and/or improve the programs' learning outcomes' relevance. The CBE program shares its results with external partners and the larger CBE community to support continuous improvement of CBE as a practice.





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