# Proposal for a Johns Hopkins University Microcredentials Framework | November 2024

Johns Hopkins University

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# Executive Summary

Over the course of academic year 2023-24, the Johns Hopkins University Alternative and Stackable Credentials Workgroup developed a comprehensive framework for microcredentials designed to enhance the University's educational offerings, expand its mission to foster lifelong learning and innovation, and maintain its position as a leader in higher education. The workgroup's key recommendations are as follows:

1. Johns Hopkins University should adopt the suggested glossary of definitions related to non-degree, non-credit (NDNC) learning delivery and microcredentials in order to promote consistency, transparency, and alignment with the JHU mission in said activities.
2. The University should adopt the Johns Hopkins University Microcredentials Framework, as described. All units of the university offering NDNC and/or microcredentials should be held accountable for adhering to the standards and definitions described.
3. The provost should form and charge a new university-wide JHU NDNC and Microcredential Advisory Committee. This committee could involve a reconstruction of the current NDNC Steering Committee. Advisory to the Provost, the JHU NDNC and Microcredential Advisory Committee would be charged with providing strategic guidance on NDNC development and microcredentialing at JHU. The scope of the committee should include:
    a. Establishing policies, guidelines, and procedures for NDNC and JHU Microcredentials
    b. Ensuring that JHU NDNC offering and Microcredentials align with JHU's mission, vision, and values and are consonant with the JHU brand.
    c. Advising on strategies that promote innovation, interdisciplinary, and interdivisional collaboration in NDNC and microcredentialing.
    d. Continuing exploration of NDNC to credit, certificate, and degree pathways at the university and develop relevant policies
4. Each of JHUs ten schools should be charged with developing a review and approval process for JHU Microcredentials. Each school plan must identify the process by which new JHU Microcredentials will be evaluated to comply with the definitions and standards defined in the JHU Microcredential Framework. Their plans will be evaluated and approved by the JHU NDNC and Microcredential Advisory Committee.

5. The Office of the Provost should also form and regularly convene a Microcredential Community of Practice. The Community of Practice should be open to any faculty or staff interested or involved in the creation, implementation, and evaluation of microcredentials at JHU. The Community of Practice should discuss challenges, best practices, emerging trends, and lessons-learned associated with JHU Microcredentials.

# The Context for Alternative Credentials

In their 2021 book, *The Great Upheaval: Higher Education's Past, Present and Uncertain Future*[1], Arthur Levine and Scott Van Pelt identify five profound new realities that will shape the future of higher education:

1. *Institutional control of higher education will decrease, and the power of higher education consumers will increase.* The advent of the global, digital and knowledge economy will drive consumers to become the deciders of what, where, when, and how they consume learning content.
2. *With near universal access to digital devices and the internet, students will seek from higher education the same things they are getting from the music, movie, and newspaper industries.* That is, they will seek consumer-rather than producer-determined contents; individualized over one-size-fits-all content; unbundled rather than bundled content; and low cost over high with the except of "luxury" higher education.
3. *New content producers and distributors will enter the higher education marketplace, driving up institutional competition and consumer choice and driving down prices.* Providers will include online content developers such as Coursera as well as corporate professional development educational developers including Microsoft, Amazon, Google, etc.
4. *The industrial era model of higher education, focusing on time, process, and teaching, will be eclipsed by a knowledge economy successor rooted in outcomes and learning.* This shift to documenting the process of teaching to documenting the process and outcomes of student learning will be driven by the tenets of educational research and learning science, the promotion of equity, and the need to demonstrate return on investment.
5. *The dominance of degrees and just-in-case education will diminish; nondegree certificates and just-in-time education will increase in status and value.* Although degrees have enjoyed a far higher status and been viewed as the more valuable credential, the balance will be reset, and degrees can be expected to lose ground to certificates and microcredentials.

[1] Levine, A. & Van Pelt, S. (2021). *The great upheaval: Higher education's past, present, and uncertain future.* Johns Hopkins University Press: Baltimore.

Levine and Van Pelt conclude that these five new realities will transform the higher education model into one that is based on learning and outcomes where competency-based education (independent of time and process) will become the norm.

Competencies will become the current and accounting of higher education rather than credit hours and Carnegie Units. This model will require that the learner's mastery of competencies be assessed, certified, credentialed, and recorded on student transcripts.

One might argue that the new realities predicted by Levine and Van Pelt have already emerged. According to a 2022 report by Credential Engine[2], there are currently **more than a million** secondary and postsecondary credentials offered across the country. That is more than triple the number the organization found in 2018. Those credentials are produced by more than 59,692 different credential providers, more than half of them from outside academia. A 2023 survey of 322 universities from 48 states, Guam, Puerto Rico, the District of Columbia and five Canadian provinces conducted by AACRAO revealed that over 60% of respondents' institutions were considering, exploring, or implementing some form of alternative or innovative credential[3]. Respondents in the same survey indicated their perception of the potential benefits associated with alternative or innovative credentials to be evenly distributed across student success, learner empowerment, labor-market participation, and peer competition. While college and university programs targeting specific skills have long served adult learners looking to update their job skills or switch careers, research also indicates that recent high school graduates are also flocking to them in greater numbers. An April 2024 report from the National Student Clearinghouse Research Center[4] indicated that nearly 154,000 recent high school graduates earned certificates that year, reflecting an 11% increase over the previous years.

Microcredentials build on discourses about the changing role of higher education in the 21st century. Interest in and early adoption of alternative credentials is being driven by higher education institutions, non-profit organizations, private industry, and government entities. In a technology and information economy where new jobs and career paths are rapidly created, employees are seeking ways to shorten the transition

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[2] Credential Engine. (2022). *Counting U.S. postsecondary and secondary credentials.* Washington D.C.: Credential Engine. https://credentialengine.org/wp-content/uploads/2023/01/FinalCountingCredentials_2022.pdf

[3] Simmons, M., Geisel, N., McConahay, M., & Kilgore, W. (2023). *Credential confusion: A call for uniformity in practice and terminology.* AACRAO, p 5.

[4] National Student Clearinghouse Undergraduate Degree Earners report. (2024). https://nscresearchcenter.org/undergraduate-degree-earners/

time from education to work and vice versa, and to quickly adapt to changing industry demands. In response, higher education institutions across the globe have begun to offer microcredentials, digital badges, certificates, massive open online courses (MOOCs), and short courses.

In addition, the government has recently demonstrated interest in microcredentials as illustrated in a 2023 report[5] that identified 59 state-led initiatives to bolster and expand microcredential programs across 28 states, adding up to investments totaling more than $3.81 billion. During its November 2024 Student Success Summit, the Maryland Higher Education Commission (MHEC)[6] stated it will now recognize "credentials of value" as contributing toward the state's stated goal for 65% of Maryland residents aged 18+ to successfully receive such a credential by 2035. In her presentation, Executive Director of the Governor's Workforce Development Board, Rachael Stephens Parker, defined "credentials of value" as recognized qualifications that will equip completers to fulfill workforce vacancies in the state's priority areas. Such educational opportunities might include NDNC offerings, licensure/certification programs, as well as more traditional degree and certificate programs.

Interest in alternative and microcredentials has also been rekindled and intensified following COVID-19 with a direct link to declining student enrollment forcing universities to expand outreach to non-traditional student markets and international, geographically distant learners[7]. The concept of microcredentials, in this sense, is relatively new and has been formed by the joint efforts of researchers, practitioners, and policy makers. Some naysayers argue that microcredentials seek to undermine the value of a traditional college experience and degrees. Others, however, opine that alternative and microcredentials introduce an "innovative approach to professional development, recognition, assessment of prior learning, etc."[8] and should be meaningfully incorporated into the higher education ecosystem. In that same systematic literature review of microcredentials, the authors state that their research

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[5] Murphy, S. (2023). *A typology and policy landscape analysis of state investment in short-term credential pathways.* HCM Strategists, LLC. https://static1.squarespace.com/static/62bdd1bbd6b48a2f0f75d310/t/648c972a23cb3714b750b74b/1686935342423/HCM+-+STC+paper+-+FINAL062023.pdf

[6] The Maryland Higher Education Commission Student Success Summit was held on November 14-15, 2024.

[7] Varadarajan, S., Koh, J. H. L., & Daniel, B. K. (2023). A systematic review of the opportunities and challenges of micro-credentials for multiple stakeholders: Learners, employers, higher education institutions and government. *International Journal of Educational Technology in Higher Education*, *20*(1), 13.

[8] Tamoliune, G., Greenspon, R., Tereseviciene, M., Volungeviciene, A., Trepule, E., & Dauksiene, E. (2023, January). *Exploring the potential of micro-credentials: A systematic literature review.* In *Frontiers in Education* (Vol. 7, p. 1006811). Frontiers Media SA.

demonstrates that the diffusion of microcredentials as an innovation in higher education is likely to continue and that higher education institutions should be seen as both providers and innovators in the process.

## Benefits and Challenges Associated with Alternative and Microcredentials

Educational research commonly concludes that the development and implementation of alternative and microcredentials in higher education is still in the early stages of development. Therefore, it is difficult to provide compelling evidence of benefits. However, early indications gleaned from the systematic literature reviews cited suggest that microcredentials provide students with a wide range of benefits associated with job and study. These include:

- Developing and documenting professional competencies such as task mastery and professional techniques
- Providing learners with more innovative, current, industry-aligned education that strengthens specific knowledge and skills
- Lowering entry barriers through reduced cost and short course duration may promote equity and access
- Providing flexibility of timing and sequencing that allows learners to self-regulate and adjust learning to personal/professional capacity and needs
- Allowing students to learn vertically (e.g., a sequence of increasingly advanced courses that build upon each other), horizontally (e.g., combinations that broaden knowledge or competency across multiple technology or programming tools), or in other domains (e.g., engineers or other professionals acquiring project management skills)
- Providing a mechanism to learn or acquire new technological skills long before they can be included in traditional degree curricula (e.g., Cybersecurity)

As an emerging innovation, alternative and microcredentials also face several challenges. The most formidable challenge, documented across nearly all reports and articles that we reviewed, is the undermining of confidence and trust in alternative and microcredentials due to lack of common definitions, standards, and regulations. Given their newness, the benefits of alternative and microcredentials as part of the higher education ecosystem are yet to be proven. Large gaps remain in academic research

and most publications on the topic are white papers and reports. Other challenges identified in the literature include:

- Potential fragmentation of knowledge with learners learning small pieces of information without any synthesis or integration commonly targeted in a curriculum
- Without accreditation and other standards for quality assurance, the quality of alternative and microcredential learning offerings varies widely and may not equate to the quality expected of and delivered by higher education institutions. This risk was recently highlighted in an October 2024 Inside Higher Education article
- Most digital recruitment and human resource management technology do not accept and process non-degree credentials
- Colleges and universities are struggling to adopt sustainable business models for these offerings

## Alternative and Microcredentials at Johns Hopkins University

Provision of learning to non-degree, non-credit (NDNC) learners has been an interest for several schools at Johns Hopkins University since the early 2000s. Interest began to crescendo in 2021 with additional schools showing interest as graduate student enrollments (mostly online and residential master's programs) began to decline. In 2022, the university contracted EY-Parthenon to conduct an analysis of Johns Hopkins' online and non-traditional educational offerings (such as executive education) university-wide, including benchmarking against peers and an analysis and prioritization of opportunities for growth, needed technology investment, and mechanism for assuring academic excellence commensurate with residential programs. Results of the EYParthenon report indicated a $6b market for professionally oriented credentials offered through corporate organizations with around 10% of that revenue earned by companies that partner with higher ed institutions. In 2022, JHU's NDNC portfolio contributed around $20m in revenue from about 185K learners, 95% of the enrollments and 20% of the revenue were generated through Coursera enrollments. An additional 40% of the revenue was generated through Continuing Medical Education (CME) at School of Medicine and the remaining 20% of revenue was generated by programs across CBS, BSPH, SON, SOE, and WSE. EY-Parthenon further projected that JHU could grow its portfolio to $50m over time with investments in coordinated

business to business development, operational enablers, and innovative credential pilots.

Following the EY-Parthenon consultation, the Council of Deans recommended the formation of a university-wide NDNC Steering Committee to guide the implementation of recommendations generated by the EY-Parthenon report. The NDNC Steering Committee launched in March 2023, targeting five workstreams:

1. Contracts and Procurement
2. Technology
3. Identity Management (related to technology access)
4. Alternative and Stackable Credentials
5. Business Development

# Alternative and Stackable Credentials Workgroup Process

The Johns Hopkins University NDNC Steering Committee formed and charged the *Alternative and Stackable Credentials* working group in July 2023 (See Appendix A for roster). The group was provided with the following charge:

1. Develop university-wide definitions and policies for creation, approval, assessment, and documentation of alternative credentials at Johns Hopkins University.
2. Identify, launch, and evaluate stackable credential pilots that will inform the broader university strategy in this area.

## Survey of Internal Alternative and Stackable Credential Use, Needs, and Aspirations

For most of academic year 2023-24, the working group focused on two primary efforts. The first involved surveying the internal JHU landscape to determine current use of, need for, and aspirations to utilize microcredentials and stackable credentials. The second included completing a survey of the external higher education landscape regarding alternative credentials.

To achieve the first goal, the group launched a survey that was disseminated to all individuals working with NDNC opportunities and/or alternative credentialing, including those that are part of divisions and centers that may be interested in using NDNC in the future. Survey questions were divided into two groups. The first group of questions asked about the definition, use, and future use of microcredentials, and the second group asked about the definition, use, and future use of stackable microcredentials. The questions also asked the respondents' opinion of credentialing in credit bearing courses and stacking from non-credit to credit.

There were 43 respondents to the survey, representing all divisions and centers, including the JHU libraries and CTY. Results are presented in Appendix B. The data are presented in the aggregate for the whole of JHU, with some divisions having more than one respondent, and disaggregated below by division to ensure accurate divisional and center representation.

Results indicated that, in general, the majority of divisions are not using microcredentialing and only 4 indicated that they are stacking into certificates of completion in the NDNC area. None of the divisions are using credentialing in academic programs and none are stacking non-credit to credit. When asked if they assess learning in the NDNC offerings, a few indicated that they do in some activities, but several indicated that they are planning to assess learning in future offerings. The survey showed that most respondents were not comfortable in stacking NDNC to Credit, and may consider it as an option if quality, rigor, and assessments are well defined and monitored. However, stacking offerings in the NDNC to certificates of completion is an option that most divisions will entertain if assessments of learning are part of the process. In addition, respondents offered the following as key components of the definitions of "microcredentials" and "stackable microcredentials":

*Microcredentials:*

1. Are Short skills/focused learning
2. Can stack into credential or certificate/complement other microcredentials/stack into macro-credentials
3. Are clearly defined standards/quality assurance standards
4. Include mechanisms for recognition of prior learning
5. Are based on competencies
6. Are skill-based
7. Include badging capability
8. Are assessed

*Stackable Microcredentials:*

1. Are a sequence of smaller and interrelated microcredentials accumulated over time
2. Are related to the same topic
3. Are based on completion of established series of microcredentials
4. Build short-term credentials into higher level credentials
5. Are flexible
6. Reach a larger goal (certificate, degree)
7. Are based on levels of complexity of microcredential that increases as participants accumulate them into a certificate
8. Do not need to be taken in a specific sequence to stack, but may be based on a pre-set sequence

## Survey of Alternative and Stackable Credentials Higher Education Landscape

The working group also conducted an extensive survey of the external higher education landscape in relation to alternative credentials, focusing on two avenues of exploration:

1. Conducting a thorough literature review that included cataloging and analyzing articles and reports related to alternative and stackable credentials in higher education: The group cataloged and analyzed more than 35 articles, reports, and white papers on the topic. These included key reports published by AACRAO and UPCEA[9].
2. Conducting semi-structured interviews with higher education institutions viewed as leaders in the NDNC and alternative credentialing space, including:

    - Boston University
    - Cornell University
    - New York University
    - Stanford University
    - Syracuse University
    - University of Colorado, Boulder
    - University of Maryland Baltimore County (UMBC)
    - University of Virginia

Synthesis of findings from the literature review and semi-structured interviews revealed the following themes:

*Terminology Inconsistency and Confusion:* The lexicon associated with NDNC and alternative credentials is complex and inconsistent (consider the terms: microcredential, alternative credential, alternative credential, certificate, badge). There are no standard

[9] The group's work relied heavily upon the following key reports:
Simmons, M., Geisel, N., McConahay, M., & Kilgore, W. (2023). *Credentialing confusion: A call for uniformity in practice and terminology*, AACRAO.
Alternative Credentials Workgroup Report. (2022). *Alternative credentials: Considerations, guidance, and best practices,* AACRAO.
Etter, B., Fong, J., Sullberg, D., Wang, K., Zovko, A., & Angle, J. (2023). *Flexible, stackable certificates: The future of education,* ISACA & UPCEA.
Inside Higher Ed & Cengage (2023). *Making sense of microcredentials*, Inside Higher Education & Cengage.

definitions and terms that may or may not be synonymous are often interchanged. There is no standardized alternative credential taxonomy and no consensus on what makes a taxonomy superior or even effective. This confusion and inconsistency have negatively impacted the adoption and success of alternative and microcredentials by higher education and industry.

*Common Characteristics of Successful Alternative Credential Initiatives:* As evidenced through case study review and information obtained in the semi-structured interviews, successful alternative and stackable credentials at universities demonstrate the following characteristics:

- Alignment of alternative credentials with institutional vision, strategy, and priorities
- A well-defined taxonomy implemented at the university level that helps to define, organize, categorize, and market alternative credentials
- A governance or oversight structure that incentivizes innovation while also ensuring quality and protecting brand
- Clearly defined scope for the overall initiative and for each credential offered
- A central position or unit responsible for direction-setting, oversight, and accountability that does not become a barrier to school/divisional innovation
- A very long runway for long-term socialization, with tangible on-ramps for early adopters

*Role of Student Assessment and Input:* Alternative credentials have the potential to move both NDNC learners and traditional students forward in their learning journeys. To maximize that potential, it is important to recognize that:

- Student learning assessment and evaluation can create academic pathways where skills and competencies can be certified via microcredentials.
- Meaningful assessments and evaluations provide the credibility that a credential is worthy of the institution's and student's or learner's investment.
- While market research is key to developing new alternative and stackable credentials, valuable insight can also be gained via student focus groups and listening sessions.
- Students can suffer being "over-credentialed." When microcredentials are used with traditional academic students, academic advisors are critical to guiding students in selecting appropriate academic alternative credentials to pursue.

## Drafting Recommendations

Upon completing its internal and external landscape surveys and analysis, the working group met for an extended, in-person workshop to develop consensus and draft recommendations. Following the workshop, the committee chairs drafted an initial version of this whitepaper, which was disseminated for review and comment by the work group. The group met in November for a second, extended in-person workshop to establish consensus on outstanding issues and to finalize the paper. The group voted to approve the current version of the whitepaper on November 4, 2024. The whitepaper was submitted to the NDNC Steering Committee for review and was approved on November 22, 2024.

# The Johns Hopkins University Microcredentials Framework

Utilizing the approach taken in the 2022 AACRAO report, *Alternative Credentials: Considerations, Guidance, and Best Practices*, the working group developed a series of recommendations for establishment of a Johns Hopkins University Microcredentials Framework. The remainder of the report breaks these recommendations down into sections focusing on:

- **Why:** Aligning the JHU microcredential framework with the university's mission and priorities
- **What:** Establishing a *JHU Microcredential Framework* that includes a common set of JHU definitions and standards for microcredentials
- **Who:** Identifying relevant populations, included campus and community stakeholders and learner populations
- **How:** Establishing administrative infrastructure, standards, governance, and support for successful implementation and maintenance of JHU brand
- **Where: Identifying** places where microcredentials may be recorded and shared
- **When**: Describing the timing of awarding microcredentials to foster their relevance and usefulness

## Alignment with Mission and Priorities

The call for Johns Hopkins University to be an innovator and leader in the provision of NDNC learning opportunities and alternative/microcredentials is embedded directly in its mission statement:

*To educate its students and cultivate their capacity for lifelong learning, to foster independent and original research, and to bring the benefits of discovery to the world.*

Even in 1876, Daniel Coit Gilman recognized that Johns Hopkins University students would need to continue their education beyond the typical degree experience and that they would need to become lifelong learners. As the founder of doctoral education in the United States and a top 10 research university in the country, Johns Hopkins is in a unique position to re-examine and re-create the higher education ecosystem to foster

lifelong learning for the 21st century and beyond. The working group strongly recommends that the university embrace and enact this aspect of its mission. There are two potential areas of alignment between the university's mission and priorities and the proposed JHU Microcredential Framework:

1. As a leader in graduate education, Johns Hopkins should primarily focus development of NDNC and microcredentials in the post-baccalaureate and post-graduate spaces. This would mean partnering with industry, corporations, governmental agencies, and not-for-profits to mutually-develop NDNC offerings and microcredentials that allow for employees to reskill, skill-up, or gain new skills. Such focus also aligns with current JHU strengths in NDNC and with the EY-Parthenon report recommendations.
2. A secondary focus could include development of microcredentials to complement traditional degree offerings. For example, PhD students may benefit from NDNC offerings and microcredentials that prepare them for entry into non-academic career pathways. PhD microcredentials might also provide a mechanism for PhD students to explore across disciplines in a more interdisciplinary manner without disrupting their PhD curriculum. Undergraduate students may also benefit from microcredentials to document their competency in "21st century skills" or in other specialized areas of focus or outcomes (e.g., the foundational abilities could be recognized via microcredential). These complementary microcredentials would need to be developed thoughtfully and carefully in collaboration with academic leaders.

The recommendations in this white paper focus primarily on developing a microcredential framework for post-baccalaureate or post-graduate learners. Regardless of the pathway, it is critical that any Johns Hopkins University microcredential be developed, delivered, and assessed in a manner that aligns with the institution's educational quality standards and maintains the university brand.

## Definitions

The working group recommends that Johns Hopkins University adopt the following NDNC-related terms and definitions, which are either aligned with or directly taken from the *Alternative Credentials: Considerations, Guidance, and Best Practices* document, released in 2022 by AACRAO and its Higher Ed Glossary. Adoption will promote transparency, consistency, and alignment with the JHU mission.

- **Alternative Credential:** Non-traditional (non-degree) credentials offered by institutions of higher education, which may include a myriad of credit alternatives, including Massive Open Online Courses (MOOCs), microcredentials, badges, credit or non-credit bearing certificate programs and various other opportunities. Typically issued in a digital format, they represent an earned skill or achievement that can stand alone or be combined (or stacked) with other credentials to be applied to a higher-level credential.
- **Artifact:** An object that is issued to learners upon completion of a program or offering that demonstrates accomplishment or skill. Includes diplomas, digital badges, or certificates.
- **Assessment:** A process that ensures appropriate academic rigor and expertise by gathering and recording information about student learning. Assessment usually focuses on what students know and can do and is usually descriptive in nature. Evaluation and assessment are not synonymous (see evaluation definition).
- **Authority:** The governance structure that stands behind a credential; these may include (but are not limited to) state education agencies, accreditors (institution and programmatic), and specific colleges, schools, divisions, or departments within an institution.
- **Badge/Digital Badge:** Online (visual) representations that recognize skills, achievements, membership affiliation, and participation. Open Badges (see definition) are a type of digital badge.
- **Certificates**: Academic programs (undergraduate, graduate, or professional levels) based on a free-standing body of knowledge, often interdisciplinary in nature. They typically have a minimum number of credits and are smaller than major programs of study. Completed certificates typically are recorded in academic records and displayed on transcripts. In Maryland, the term "certificate" is regulated by MHEC.
- **Certification:** Refers to the process by which an educational institution or a recognized certifying body validates that a learner has attained a specific level of skill or knowledge in a particular field or discipline.
- **Comprehensive Leaner Record (CLR)**: An official document that seeks to capture, record, and communicate learning when and where it happens in a student's educational experience. This includes learning outcomes and assessment from courses, programs, and degrees, as well as selected co-curricular and extracurricular learning (outside the classroom) that help develop

career ready skills and abilities. A CLR may contain one or more other credentials (badges, degrees, certificates, courses, experiences, etc.) that have been validated and recorded on behalf of the student.

- **Continuing Education Units (CEU):** A standardized measure used in the United States and Canada to quantify and record non-credit continuing education and professional development activities. CEUs are typically awarded to individuals who complete specific educational programs, workshops, seminars, or training courses that are designed to enhance their skills, knowledge, and competence in a particular field or profession. (See Johns Hopkins Continuing Education Unit for specific JHU definition).
- **Credential:** A form of documentation that confirms a learner's qualifications, abilities, or authority. Provided by a trusted third party, such as a college or university, with authority or accepted competence to issue the document. Term encompasses many different assertions of learning, including educational degrees, educational certificates, badges, certifications, licenses, microcredentials, nanodegrees and credit or noncredit certificates.
- **Evaluation:** Designed to document the level of achievement that has been attained. Includes global measures of how well a particular project, class, or initiative performed and whether or not it met its goals. Evaluation is not synonymous with assessment (see definition of assessment).
- **For Credit:** Courses or other learning experiences resulting in a learner earning academic credit which displays on an academic transcript upon completion and is regulated by the Code of Federal Regulations, CFR600.2.
- **Johns Hopkins University Continuing Education Unit (JHU CEU):** A measure of instructional time in an NDNC learning offering with one JHU CEU typically representing 10 hours of participation in learning activities for a particular learning offering. JHU CEUs reflect the estimated time an average learner will spend completing the mandatory components of an offering. JHU CEUs are not equivalent to those overseen and offered by professional accrediting and associations.
- **Learners:** Individual actively engaged in acquiring knowledge, skills, and understanding of a subject or a range of subjects. Specifically at Johns Hopkins University, this includes individuals who engage in non-degree and not-for-credit educational offerings. Not all learners are considered "students" (see student definition).
- **Learning Outcomes:** Measurable assessments and standards that articulate what earners have learned or can demonstrate upon completion of a credential.

- **Metadata:** An intricate framework of data that serves as the fundamental foundation of a badge, which outlines the criteria fulfilled by an individual to attain a specific credential, accompanied by tangle proof of the individual meeting those stipulated requirements. Must also include recipient's identity, the issuing entity, timing of issuance, and the purpose behind the credential[10,11].
- **Microcredential:** A competency or skills-based recognition that allows a learner to demonstrate mastery and learning in a particular area. A microcredential is generally a subset of learning achievements or outcomes that is less than a full degree or certificate. A microcredential offered by an institution of higher learning should be asserted by a recognized campus authority.
- **Non-Degree/Non-Credit (NDNC):** Courses or other learning experiences that do not result in a learner earning academic credit, and which do not typically appear on an academic transcript, yet may be recognized through other means.
- **Open Badges:** A type of digital badge, open badges conform to the Open Badges standard and can serve as portable credentials containing metadata that offer detailed information about the achievements being credentialed. Open badges contain metadata which provides additional information about the credential and how it was earned.
- **Prior Learning Assessment (PLA):** Assessment and awarding of institutional credit for work or life experiences. Includes military training and experience, national or institutional examinations, or alternative demonstration of college-level knowledge and competencies.
- **Stackable Credentials:** A modular approach in which credentials are designed to be combined or sequenced with other credentials, often in learning pathways.
- **Students:** For FERPA compliance purposes, Johns Hopkins University defines a student as an individual who is or has attended the University and for whom the University maintains education records. This definition includes early matriculants (fall semester admits attending summer term), former students, individuals who are taking classes for academic credit but have not been admitted to a degree or certificate program, visiting students, and alumni. This definition does not include prospective students, applicants who have been admitted but did not attend, applicants who have been denied admission, and individuals participating in lifelong learning/continuing education programs not taken for academic credit available through one of JHU's academic divisions[11].

[10] Adapted from Credly. (2024). *The Art of Credentialing: Maximizing Value Through Metadata.*
[11] Johns Hopkins University, Office of the Registrar FERPA Terms and Definitions.

## The JHU Microcredential Framework

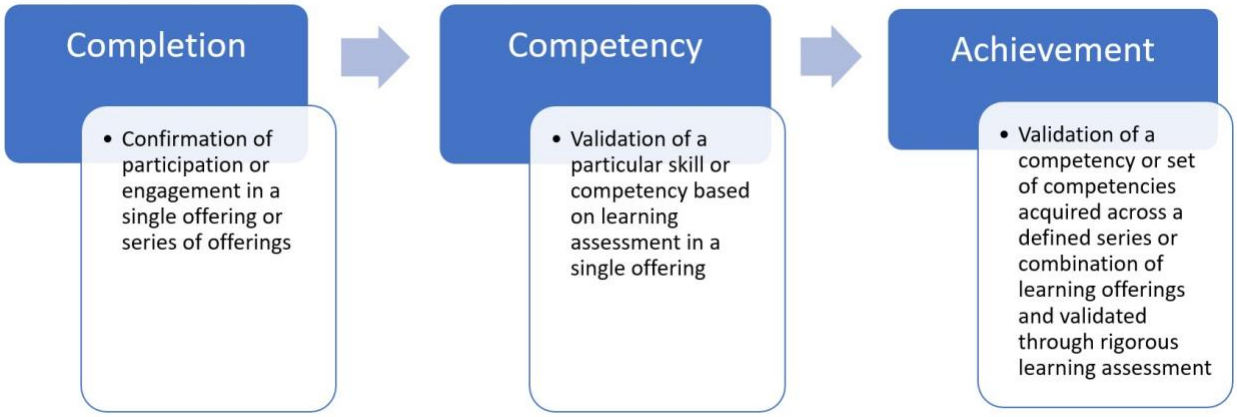
Further, the working group recommends that JHU adopt a university-wide microcredentials framework. Specifically, the group recommends adoption of the JHU Microcredentials Framework, as described below. The JHU Microcredential Framework was based upon the following principles:

1. JHU Microcredentials should clearly align with the university's mission and vision. They should also support university initiatives.
2. The JHU Microcredential Framework should be utilized by all JHU schools, divisions, and departments offering microcredentials to promote consistency and transparency. Therefore, the framework should reflect the variety of learning activities, outcomes, and assessments provided by the institution.
3. JHU Microcredentials should also reflect the rigor and quality of learning associated with the Johns Hopkins University brand. Accordingly, evaluation of learning offerings is the best practice in assuring rigor and quality and should be incorporated into all levels of the microcredential framework.
4. The microcredentials framework should be stackable. Therefore, assessment of learning should be central to distinguishing between and among the microcredentials in the framework. At this time, microcredentials cannot be stacked toward credits, regulated certificates, or degrees at the University. However, schools may develop and employ noncredit to credit policies to guide awarding of credit (typically no greater than 6 credits per learner) for some non-credit work. These policies should include provisions for direct assessment of the learner's competency or review of direct assessments completed by the learner as part of the learning offering/activity.
5. The governance and oversight structures for JHU Microcredentials should align with the university's approach to approval of new academic degree programs and certificates in that the schools should be charged with primary responsibility and authority for creation and approval of new programs with final approval and oversight provided at the central level.
6. JHU Microcredentials ideally should be issued as open badges delivered with accompanying metadata either immediately or shortly after completion. The badges and metadata should be officially issued by and maintained by the university. The Office of the Provost should develop a preferred visual standard template for both digital badges and certificates. Until such technology is

available at the university, schools should provide electronic certificates via .pdf format and maintain record of all microcredentials awarded.

Using these principles, the working group created a three-tiered microcredential framework illustrated in Figure 1. The tiered microcredentials are distinguished by several factors including level of learning, rigor of learning assessment, and association with a single learning offering, series of stand-alone learning offerings, or series of stackable offerings. All microcredentials in the framework require evaluation.

Figure 1. Johns Hopkins Microcredentials Framework




Completion Microcredential: Confirms participation or engagement of learners in either a single offering or series of offerings. There is no learning assessment required for this microcredential but evaluation is required. The Completion Microcredential may also indicate JHU CEUs, if relevant. Completion Microcredentials are not stackable into a higher level microcredential.

The Completion Microcredential may be delivered as a digital certificate (provided in .pdf format) or in a digital badge format, verified on the blockchain.

Competency Microcredential: Validates that a learner has demonstrated a particular skill or competency based as a result of participation in a single learning offering or activity. Must include learning objective(s) that state the specific skill or competency targeted and learning must be validated through learning assessment of said objectives. Evaluation is also required. The Competency Microcredential may also indicate JHU CEUs, if relevant. Competency Microcredentials are stackable into Achievement Microcredentials.

Competency Microcredentials should be delivered as a digital certificate or in a digital badge format, verified on the blockchain.

Achievement Microcredential: Validates that a learner has demonstrated a competency or set of competencies gained through learning across a defined series or combination of learning offerings/activities. Must include learning objectives that state the skills, competencies or sets of skills/competencies targeted and learning must be validated through comprehensive learning assessment of content mastery and proficiency. Evaluation is required. Achievement Microcredentials are achieved through stacking.

Achievement Microcredentials are delivered as a digital certificate or in a digital badge form, verified on the blockchain.

## Recording, Delivery and Timing of JHU Microcredentials

Ideally, in a near-future state, JHU Microcredentials will be delivered via electronic certificate and/or open badge, verified on the blockchain. Until technology is in place to support this method of delivery at-scale, the working group recommends that JHU Microcredentials be issued via electronic (.pdf) certificate or badged through the university's instance of HelioCampus Assessment[12]. The Office of the Provost will develop a visual standard template to be applied to both the digital and .pdf formats in the short-term.

NDNC learners typically prefer immediate issuance of microcredential. Therefore, it is recommended that divisional/school processes develop processes to issue JHU Microcredentials within two weeks or sooner of completion.

All certificates issued must meet JHU's brand guidelines as published by Communications. Language used on certificates must clearly differentiate them from MHEC-approved Certificates, which are issued to students as credentials by the Office of the University Registrar.

[12] Digital badging currently offered through JHU's instance of HelioCampus Assessment requires a high degree of manual input and checking. In order to achieve digital badging at the scale envisioned by the working group, the university will need to procure an NDNC CRM system for uniform registration of learners and potentially invest in an additional system for badging and issuing of electronic certificates.

JHU Microcredentials will not be recorded or delivered by the Office of the University Registrar.

Instead, the relevant JHU schools, divisions, and center should develop processes for delivering JHU Microcredentials that adhere to these guidelines and any future university policies or guidelines. In addition, each unit issuing JHU Microcredentials must maintain a record of the microcredentials in accordance with JHU's Records Retention and Destruction Policy[13].

## Administrative Infrastructure, Oversight, and Governance

The working group strongly recommends that the university's approach to oversight and governance of JHU Microcredentials align with its approach to the creation and approval of new academic degree and certificate programs. That is, JHU's 10 schools should be charged with primary responsibility for innovation, creation, and approval of JHU Microcredentials. Central oversight should be fairly high level, should not duplicate school process, and should not cause unnecessary delays in launch. Accordingly, the working group offers the following recommendations:

1. The provost should form and charge a new university-wide JHU NDNC and Microcredential Advisory Committee. This committee could involve a reconstruction of the current NDNC Steering Committee. Advisory to the Provost, the JHU NDNC and Microcredential Advisory Committee would be charged with providing strategic guidance on NDNC development and microcredentialing at JHU. The scope of the committee would include:
    a. Establishing policies, guidelines, and procedures for NDNC and JHU Microcredentials
    b. Ensuring that JHU NDNC offering and Microcredentials align with JHU's mission, vision, and values and are consonant with the JHU brand.
    c. Advising on strategies that promote innovation, interdisciplinary, and interdivisional collaboration in NDNC and microcredentialing.
    d. Continuing exploration of NDNC to credit, certificate, and degree pathways at the university and develop relevant policies
2. Each of JHUs 10 schools should be charged with developing a review and approval process for JHU Microcredentials. This provides the schools with the

[13] JHU Records Retention and Destruction Policy: https://policies.jhu.edu/doc/fetch.cfm/cRSbwh8A

highest degree of autonomy and honors school culture. When developing the approval process, schools are encouraged to consider how current academic curriculum and program approval processes could be modified or repurposed. For example, creation and approval of a new JHU Microcredential involving co-curricular learning for ASEN undergraduate students might be best handled by relevant KSAS and WSE undergraduate curriculum bodies. Alternatively, new JHU Microcredentials proposed for a WSE NDNC offering might be overseen by the relevant WSE graduate curriculum committee or require the development of a new process overseen by the WSE Associate Dean for Lifelong Learning.

Each school plan must identify the process by which new JHU Microcredentials will be evaluated to comply with the definitions and standards defined in the JHU Microcredential Framework. Their plans will be evaluated and approved by the JHU NDNC and Microcredential Advisory Committee.

3. The Office of the Provost should also form and regularly convene a Microcredential Community of Practice. The Community of Practice should be open to any faculty or staff interested or involved in the creation, implementation, and evaluation of microcredentials at JHU. The Community of Practice should discuss challenges, best practices, emerging trends, and lessons-learned associated with JHU Microcredentials.

# Appendices

## Appendix A: Credentials Working Group Roster

***Co-Chairs***

Chadia Abras, Senior Director of Institutional Assessment, Office of the Provost & Associate Professor, School of Education

Janet Schreck, Senior Associate Vice Provost for Academic Affairs, Office of the Provost & Associate Professor, School of Education

***Members***

Veronica Donahue, Associate Dean for Graduate Professional Programs, KSAS
Pratima Enfield, Executive Director of Distance/Online Learning, SAIS

Ira Gooding, Assistant Director, Open & Inclusive Education, BSPH & Provost's Fellow for Digital Initiatives, Office of the Provost

Christina Harnett, Associate Professor and Chair, Counseling and Educational Studies, School of Education

Paul Huckett, Associate Dean for Lifelong Learning, WSE

Robert Kearns, Director of Online Education, SOM

Amynah Mithani, University Registrar and Associate Vice Provost, Office of the Provost

Shawna Mudd, Associate Professor and Associate Dean, Academic Affairs, SON

Julia Schreck, Senior Director, Executive Education, CBS

Steve Stone, Professor and Director of Undergraduate and Graduate Studies, Peabody

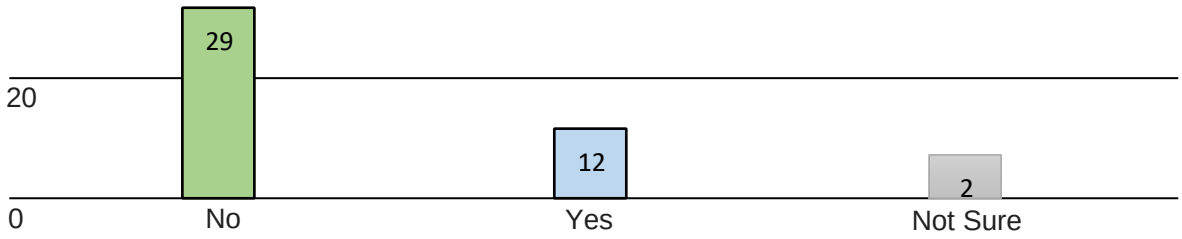
Elizabeth Topper, Research Professor and Director, Online Programs for Applied Learning, BSPH

Ally Weisberg, Associate Director for Executive Programs, CBS

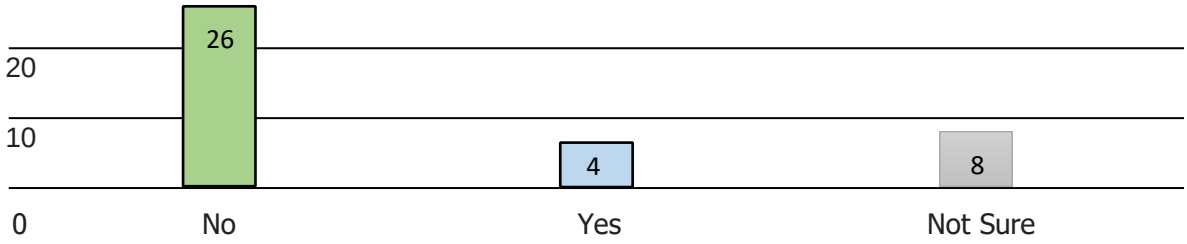
# Appendix B: Internal JHU Credentialing Survey Results

**CURRENT APPLICATION**

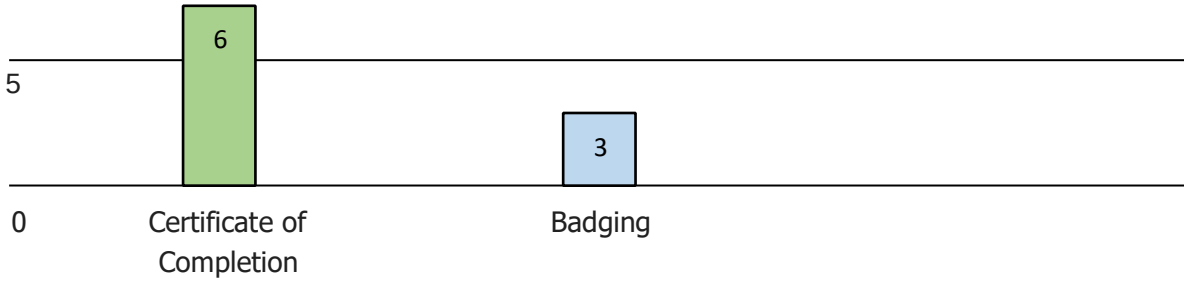
**Use of Microcredentials at JHU**



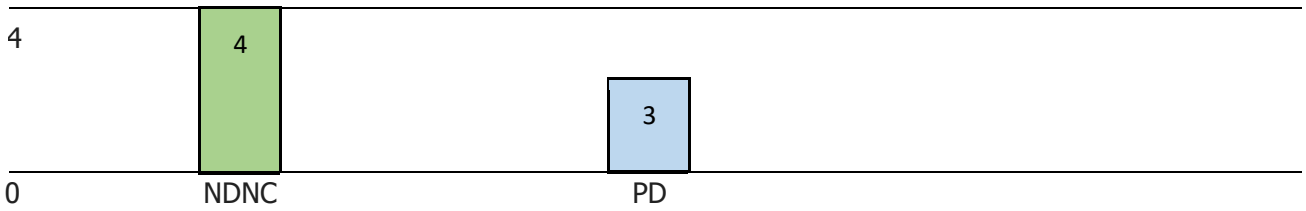

**Use of Stackable Credentials at JHU**



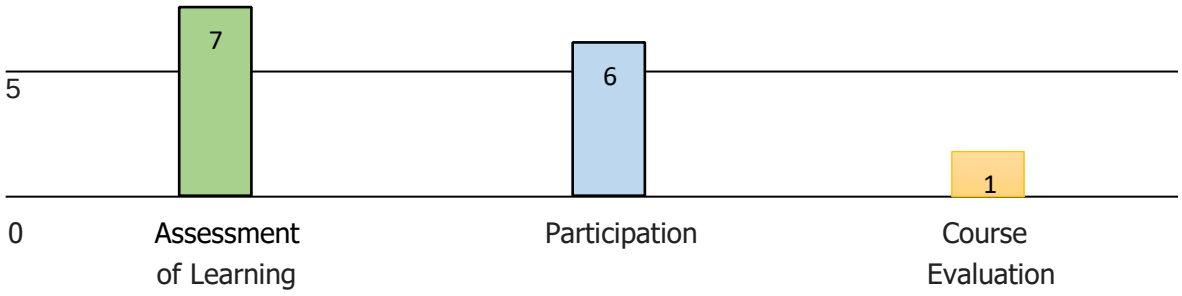

**Existing Use of Microcredentials - Output**




**Existing Use of Microcredentials – Area**



**Measuring Success in Microcredentials**

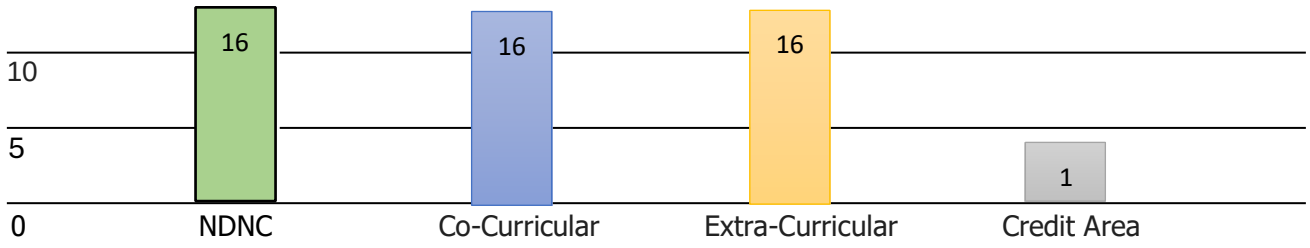



**Types of Assessments Used in NDNC**

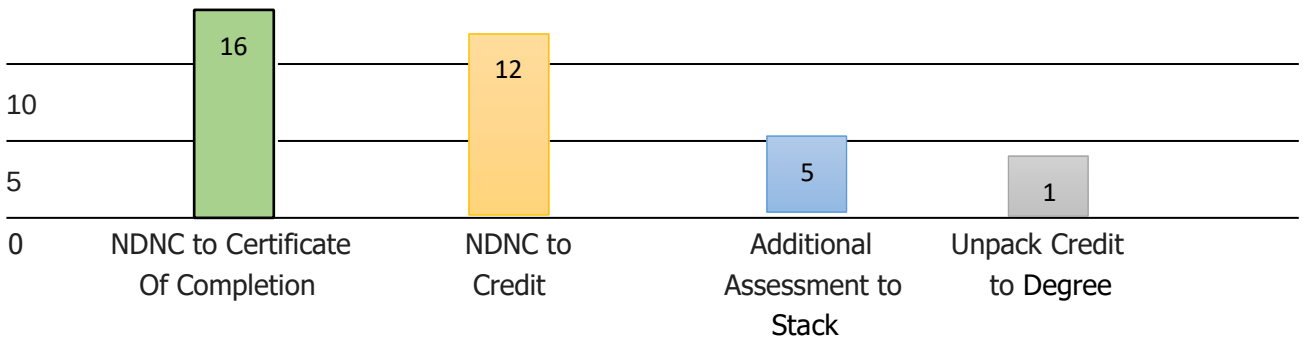
- Quizzes
- Projects
- Reflections
- Discussions
- Knowledge Checks
- Peer-Graded Work

**FUTURE APPLICATION**

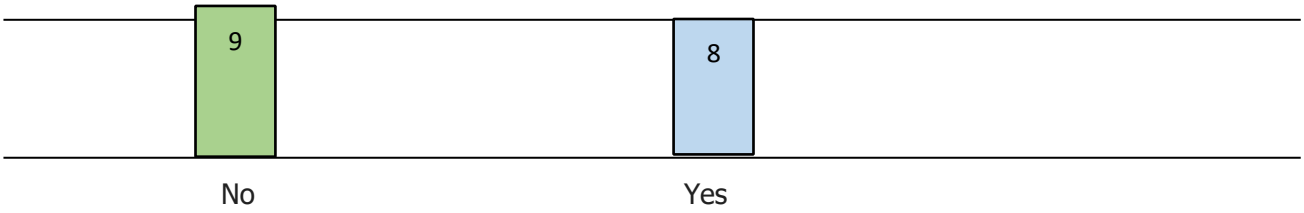
**Areas where to Apply Microcredentials**




**Mechanisms for Stackability**



**Use of Microcredentials in Academic Course Work**




**Themes from Divisional Qualitative Responses**

*Bloomberg School of Public Health:* The division uses microcredentials by issuing badges and certificates of completions. The two platforms used are CoursePlus and Coursera. They have been using microcredentials to issue certificates of completion since 2008. Assessment of learning is used in some cases; they could be quizzes or peer-graded work. They see market demand for microcredentials in their area. The group agreed that use for microcredentials could be in the NDNC, continuing education, co-curricular, maybe some interest in credit courses - can recognize skills earned and credential them. An interesting point the division makes is the concept that leads to the idea of the CLR is transferability of microcredentials within Hopkins and from outside for stackability and or credentialing. The division is using stacking of microcredentials in Coursera. They started the process in 2014. Additional assessments are required for certificates of completion in some areas, usually it is in the form of a capstone. In these cases, learning outcome data are analyzed and applied to future improvements. All respondents from BSPH agree that stackability from NDNC to certificate of completion are useful, but also most agreed that there is room to think about stacking for credit, if well designed.

*Carey Business School:* The division offers microcredentials that are short courses in professional development that deliver knowledge and skills for solving business challenges in a specific area. They are offering badges through HelioCampus.

*Krieger School of Arts and Sciences:* They do not offer microcredentials. They see interest of microcredentials in the co-curricular and extracurricular spaces.

*Advanced Academic Programs Division:* The division does not use microcredentials or stackability, but hopes to do so in the NDNC, co-curricular, and extracurricular spaces. They will assess learning when credentialing and stacking. Currently they stack internal faculty development courses, faculty can

stack to a certificate. They assess learning in these courses. Also, additional assessments are required to obtain the certificate. They do envision stacking in the NDNC area but not toward credit or degree.

*Center for Teaching Innovation and Excellence:* The center does not offer microcredentials. Currently the Teaching Academy offers a three-phase Certificate of Completion program. They envision re-organizing to offer microcredentials or multiple certification options that would offer clearer professional teaching development pathways. They see a need for stacking in the professional development area and the co-curricular space. They have concerns in stacking in the academic space. However, stacking could improve course alignment to outcomes. They see no value in stacking NDNC to credit.

*SNF Agora Institute:* The institute does not offer microcredentials but is interested in developing some offerings in the future.

*Peabody:* Does not offer microcredentials but are exploring the idea for PD courses. They are not stacking. They do not use microcredentials or stacking in academic course work.

*School of Advanced International Studies:* Does not offer microcredentials. They do have stackable non-degree/certificate (for-credit course) options that can feed into degree programs. They are starting short-term, non-credit executive education courses and exploring stackable options that will lead to a Certificate of Completion. They offer NDNC but are unpacking for credit courses to lead to certificates of completion. They do not use credentialing or stacking in academic course work and have concerns about quality and time allocated to the offerings. They see value in stacking from NDNC into credit as long as proper assessments are in place.

*Sheridan Libraries:* Does not use microcredentials or stacking and have not identified future use.

*School of Education:* Does not offer microcredentials.

*Center for Technology in Education:* They offer microcredentials. CTE has a couple of courses they offer as NDNC, they are assessed, and they use their own LMS and AMS. CTE offers mostly teacher training provided for states on their own websites. They are grant funded.

*School of Medicine:* Armstrong does not offer any GME, however, they offer a seminar series for leadership and physician training. They started the program five years ago and they do assess learning. SOM has several NDNC offerings through Coursera and CME offerings.

*School of Nursing:* Offers academic certificates and an NDNC Executive Education program. They started five years ago, and they assess learning in the LMS and AMS.

*Whiting School of Engineering:* Offers microcredentials and certificates for faculty as professional development and they offer badges for course design. They are creating new courses in the B2B NDNC area, which will offer both completion and assessment-based badges.