

GETTING STARTED WITH MICROCREDENTIALS: A PRIMER FOR HIGHER EDUCATION LEADERS

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Goals of this Brief

Our goal in this brief – from the perspective of researchers and educators with deep experience related to microcredentials – is to synthesize existing insights and best practices to present a high-level primer for deans, provosts, and other senior higher education administrators and academic leaders who are considering the case for microcredentials and looking to get started in offering them. Many existing articles, research resources, and case studies related to microcredentials can be technical in nature or focused on specialized and tactical aspects of these educational innovations – and are often written for audiences such as registrars, IT leaders, or others. The focus here is on strategic considerations for executives at an institutional level.

The ideas that follow are derived from a variety of secondary sources including research organizations, practitioner journals, colleges and university publications, conference presentations, and a host of other resources. We have carefully cultivated this point of view to provide an introductory summary for higher ed leaders that also infuses our own experience, with a practical orientation toward diagnostic questions, checklists, and actions for leaders to consider: what to know about the basics of microcredentials, and what strategic questions to ask. In addition, we include examples of how higher education institutions are engaging in microcredentialing to meet various goals and demands.

WHAT ARE MICROCREDENTIALS?

It is crucial to note that there is not yet one universally accepted definition of a “microcredential,” with experts in the field, higher ed institutions, policymakers and quality assurance bodies still coming to agreement on definitions and standards. A number of organizations and jurisdictions have recently published their own individual definitions and frameworks, which typically include a reference to microcredentials’ tendency to focus on specific skills or competencies, and their often digital nature.¹

Microcredentials can be offered by training providers, professional associations, companies, and other parties – in addition to countless colleges and universities worldwide. The focus of this brief is on microcredentialing at higher education institutions. For our practical purposes here, we will use the simple definition of **microcredentials as educational credentials (both non-credit and for-credit) that are shorter than a degree**. This notion of microcredentials as a category encompasses digital badges, new types of certificate programs, and a wide variety of other non-degree credential types – including MOOC-based credentials, certificates of completion from “bootcamp” offerings, and so on. This perspective – while broad – is importantly inclusive of digital badges and other forms of microcredentials that are issued as part of existing courses and degree programs to reflect the experiences, achievement of learning objectives, and competencies within these classic offerings – which is an important trend and use case. Microcredentials can and do exist alongside traditional academic credentials, whereas some treatments of this topic tend to frame them as “alternative credentials.”

Note also that the related domain of “digital credentials,” as discussed in this brief, intersects with microcredentials. Digital credentialing can refer to both traditional degrees issued via a digital format/technology functionality (a digital version of a traditional credential), or digital badges (a newer technology standard) that can stand alone or be connected to documenting existing course achievements or educational experiences. In this guide, our orientation is toward the growing market of non-degree credentials that are often independent of traditional courses and degrees but can equally be a part of them. Our focus is on the strategy and program design considerations related to these microcredentials, especially when they are issued in a digital format.

1. Although competing definitions developed by various organizations are very helpful, their tendency to refer to microcredentials’ focus on “skills,” and aspects of “validation,” or “verification” is not always true or necessary when classifying a microcredential.

THE CASE FOR MICROCREDENTIALS

Although colleges and universities have long offered non-degree credentials, the stage began to be set for the current wave of innovation in microcredentialing beginning more than a decade ago, at the start of the 2010s. As remains true today, a coalition of policymakers at the federal and state level in the U.S., leading philanthropic foundations, and private market investors began to encourage innovation in higher education – and specifically, the production of non-degree credentials as alternatives to the traditional college degree.² Around this same time, the “Open Badges” technical standard was developed, with a focus on digitally recognizing learning achievements across a range of contexts.³ The arrival and maturation of massively open online course (MOOC) platforms, which in recent years ultimately anchored their business models (in close partnership with some of the world’s top universities) around microcredential offerings, added fuel to the fire. These developments were among the *foundations* for the current interest in and demand for microcredentials and their initial appearance on higher education leaders’ radar, which has been a worldwide trend.

Why Now

While the potential of microcredentials has received steady coverage in the higher education and business media for many years, the contemporary case for creating microcredentials is grounded in a number of recent developments and strong evidence of growing market demand. The COVID-19 pandemic and the shift toward digital learning models and online upskilling has only amplified the prior momentum. The evidence of demand for microcredentials includes:

- The number of open digital badges issued globally topped 74 million in 2022 – up 73% from 2020, and representing a tripling since 2018.⁴
- Although college and university issuance of “microcredentials” is not tracked in government statistics or other national databases, enrollment in short-form postsecondary education programs has been growing, while enrollment in degree programs is flat or declining. According to the National Student Clearinghouse Research Center, graduate certificate enrollment grew 3.6% between Spring 2021 and Spring 2023, and undergraduate certificate enrollment surged 8.7%.⁵
- Short-form offerings such as microcredentials have emerged as a top educational format preference for working professionals and adult learners seeking to advance their career, according to Strada Education Network’s consumer polling and a recent survey from the Society for Human Resource Management (SHRM).⁶
- Employers’ growing awareness of microcredentials and embrace of skills-based hiring practices is leading many corporations and other organizations to explicitly prioritize the use of certificates, certifications, and other microcredentials in their talent acquisition process – often as an alternative to relying on degrees.⁷
- Recent financial results from publicly traded education platforms that work with hundreds of leading universities reflect increasing microcredential enrollment at a substantial scale. 2U (which operates edX) reported that enrollment in its “alternative credential” business segment grew 9% in 2022,⁸ while Coursera attributes its greater than 20% revenue

2. Sean R. Gallagher, *The Future of University Credentials: New Developments at the Intersection of Higher Education and Hiring*, (Cambridge: Harvard Education Press, 2016).

3. Mark Surman, “Mozilla Launches Open Badges Project,” Mozilla, September 15, 2011, <https://blog.mozilla.org/en/mozilla/openbadges/>.

4. “Badge Count 2022,” 1EdTech, <https://content.1edtech.org/badge-count-2022/findings>.

5. “Stay Informed with the Latest Enrollment Information,” National Student Clearinghouse Research Center, March 29, 2023, <https://nscresearchcenter.org/stay-informed/>.

6. “Strada-Gallup Education Survey (2020-2021),” Strada Education Foundation, <https://stradaeducation.org/research-education-survey/>; Society for Human Resource Management, *Making Skilled Credentials Work: A New Strategy for HR Professionals* (SHRM Foundation, 2022), <https://www.shrm.org/foundation/pages/skilled-credentials.aspx>.

7. 1EdTech Foundation, *Digital Credentials & Competency Frameworks: Exploring employer readiness and use in talent management* (1EdTech Foundation, November, 2021), https://www.imsglobal.org/sites/default/files/wellspring/Wellspring_JI_Employer_Research.pdf; *Making Skilled Credentials Work*, SHRM Foundation

8. “2U Reports Strong Results for Fourth Quarter and Full-Year 2022,” 2U, February 2, 2023, <https://investor.2u.com/news-and-events/press-releases/news-details/2023/2U-Reports-Strong-Results-for-Fourth-Quarter-and-Full-Year-2022>.

growth to strong demand for industry microcredentials and professional certificates.⁹ These two platforms alone generated an estimated \$500 million+ in revenue from microcredentials in 2022, anchored in partnerships with universities and other content providers.

Potential Institutional Benefits of Microcredentials

Higher education institutions are creating and issuing microcredentials for a variety of strategic and practical reasons that align with their goals. The principal motivations for and potential outcomes of microcredentialing include:

- Generate new enrollment and revenue streams in continuing and professional education and lifelong learning
- Better recognize and document students' learning outcomes and improve the signaling of skills gained to employers, including by augmenting traditional degree experiences
- Create more flexible on-ramps to degrees as well as pathways to degree completion through "stacking" credentials
- Increase access to affordable credentialing opportunities as an alternative to sometimes cost-prohibitive degree programs
- Co-design credentials through employer and community partnerships that rapidly respond to market and community needs

Microcredential Maturity Spectrum

Consider your institution's progress in getting started with microcredentialing along a spectrum of maturity from initial exploration to developing an institution-wide strategy:

Stage I: Exploring

Your institution is exploring whether there is value in offering microcredentials to learner populations you serve, or in conjunction with certain types of programming. You are reasonably confident that microcredentials complement specific institutional goals and/or priorities, and are well-aligned to its values and mission; however, your institution has not yet had experience creating or issuing microcredentials in any systematic way.

Stage II: Piloting and Testing

Your institution has a clear rationale for offering microcredentials to specific learner audiences. You are confident enough in the rationale to design and launch a limited experiment, or pilot, that will enable you to test those assumptions while gaining some experience and gathering data and insights.

Stage III: Institutionalization

Your institution has experimented with microcredentials and has gained reasonable confirmation that they provide value to learner populations you serve. There is evidence to suggest that interest in, and adoption of, microcredentials will expand to a number of areas within your institution. Given this, you believe an institutional approach is warranted, and will enable strategic coherence and economies of scale.

9. "Coursera Reports Fourth Quarter and Full Year 2022 Financial Results," Coursera, February 9, 2023, <https://investor.coursera.com/news/news-details/2023/Coursera-Reports-Fourth-Quarter-and-Full-Year-2022-Financial-Results/default.aspx>.

Questions to consider when engaging your audience:

Western Governors University¹⁰ has been implementing microcredentials for more than 20 years and developed a learner-centric design process that utilizes design-thinking and empathy mapping tools. They outlined questions to ask your key stakeholders in the microcredential development process:

Who are the learners?

- How do they feel? What are their views? How do they behave?
- What do they do? What are their skills? What do they know?
- What motivates or demotivates them?
- What outcomes are needed from their employment?

Who are the employers?

- What are their objectives?
- What skills add value in these environments?
- What does success look like in these environments?

The content that follows synthesizes key insights, lessons learned, and best practices related to microcredentialing.

Clearly identify your target microcredential earners and engage them

Consider what are their needs and goals, and how microcredentials factor into these motivations. Pathways that enable learners to stack non-credit microcredentials into a degree later on can definitely provide flexible pathways that some learners are seeking, but it is helpful to understand the appetite for this before you make it a focal point of your strategy. Finding a target population will probably require focus groups with students and employers, discussions with other colleges and universities who are running robust microcredential programs and diving into case studies of institutions similar to yours. A detailed market analysis could determine your microcredential markets early in the process. Even if you find your market, consider whether your enrollment management team has expertise marketing short-duration, non-credit, skills-focused “products” (most of which are badged).

Develop a framework to articulate meaning and value for your institution

There can be ambivalence within your institution around the value of microcredentials because they mean different things to different institutions. By contrast, traditional academic credentials are well-established, governed by the institution, and are the focus of external accreditation bodies. To ensure value to your students, develop a framework that communicates what the microcredential means at your institution, and what one did in order to earn it. For example, Northeastern University has developed a 4-level microcredential framework that recognizes skills-focused learning across a range of contexts, and levels of depth and experiential engagement.¹¹ Apply your framework consistently so the microcredential can be considered a reliable indicator of achievement and skill development across the institution.



10. Mark Milliron and Kim Round, “Building Institutional Capacity for Microcredentials: A Framework for Innovation,” The EvoLLLution, August 17, 2021, <https://evollution.com/programming/credentials/building-institutional-capacity-for-microcredentials-a-framework-for-innovation/>.

11. “Digital Badges,” Northeastern University, <https://cps.northeastern.edu/academics/accelerated-programs/digital-badges/>.

A Checklist for Getting Started with Framework Development¹²

- ❑ Engage with your target audience and develop your hypothesis on how microcredentials can help them achieve their goals
- ❑ Identify what is distinctive about your institution. Consider its mission and values and how microcredentials represent or enable them, and consider institutional and brand strengths
- ❑ Explain how microcredentialing supports or complements broader institutional goals
- ❑ Aim for clarity and simplicity
- ❑ Understand what it will take to operationalize the framework at scale
- ❑ Determine who will uphold the integrity of the framework and ensure it is applied consistently
- ❑ Consider technology requirements or functionality: for example, if an artifact, or evidence related to the skill is required to lend validity to the microcredential, then make sure the platform you choose allows for this

Establish metrics for success

It is important to identify possible metrics for success, such as learner engagement and satisfaction, before you launch a pilot or begin implementation of your microcredential program. You may adopt recommended metrics from outside organizations, such as the University Professional and Continuing Education Association (UPCEA), referenced below, or you may identify metrics from areas in your overall institutional strategic plan.

In either case, determine some metrics during planning and pilot phases and create a cycle for data capture, reflection and iteration. Developing a logic model can be helpful during the planning phase, as it helps articulate your problem statement, assumptions, resources, activities, outcomes and impacts. Nonprofit the Education Development Center offers a toolkit to guide practitioners through the process of developing a logic model to aid in program design, implementation and evaluation.¹³ After the pilot phase, these early indicators will help you shape Key Performance Indicators (KPIs) related to your microcredentialing goals for each stakeholder group. UPCEA outlines KPIs for credentials based on a series of eight hallmarks of excellence.¹⁴ It is additionally important to determine what data collection functionality your microcredentialing platform has. This functionality can potentially place limitations on – or help enable – your ability to gather data and measure success.

12. Allison Ruda, "Microcredentials, Macro Learning: One University's Path Toward Unbundling," chap. 16 in *New Models of Higher Education: Unbundled, Rebundled, Customized, and DIY* (Hershey, PA: IGI Global, 2022) <https://www.igi-global.com/pdf.aspx?tid=314853&ptid=286666&ctid=4&oa=true&isxn=9781668438091>.

13. Karen Shakman and Sheila M. Rodriguez, *Logic models for program design, implementation and evaluation: Workshop toolkit* (Washington, DC, US Department of Education, National Center for Education Evaluation and Regional Assistance, May 2015), https://ies.ed.gov/ncee/edlabs/regions/northeast/pdf/re_2015057.pdf.

14. UPCEA, *Hallmarks of Excellence in Credential Innovation* (Washington, DC, University Professional and Continuing Education Association, 2020), <https://upcea.edu/wp-content/uploads/2020/05/UPCEA-Hallmarks-of-Excellence-in-Credential-Innovation-May-20-2020.pdf>.

The following are examples of potential ways to gauge engagement and satisfaction:

- The number of new students engaged
- The number of existing students engaged
- The number of microcredential learners who go on to enroll in a degree program
- Microcredential “claim” and “share” rates (e.g. number of microcredential earners who “claim” and accept the awarded badge or the number of times a claimed badge has been “shared” by the earner to a professional networking site such as LinkedIn)
- Feedback from participants who earned a credential about why they did or did not claim and share it
- Analysis of microcredential earner behavior once learners across the institution begin to share microcredentials on LinkedIn and other social media

Convene internal stakeholders

Generate goals and intended outcomes of a microcredentialing initiative by convening stakeholders from across campus. Some of the stakeholders, like the registrar and information technology services, will inform the operational implementation aspects of the microcredential infrastructure. Your enrollment management team will need to be very clear on this expanded portfolio of learning experiences for recruitment and enrollment purposes. Others, such as career services, may be interested in one day proposing a microcredential offering rooted in their work with students.

Support for microcredentialing needs to come from both the administration and faculty. When faculty stakeholders are involved in partnership with industry, there is a delicate balance between meeting industry needs and protecting academic freedom. Faculty are the experts on course design and pedagogy for meeting those needs.¹⁵ Employer partners can help clearly

define levels of achievement, concrete knowledge, and skills and abilities that students need to demonstrate. This collaboration generates important connections between language used inside and outside of academia.¹⁶ Aligning artifacts and skills gained in a microcredential to established competencies creates clear pathways and credibility. For example, the University system of Maryland has created the Badging Essential Skills for Transitions (B.E.S.T.) to address workplace readiness among its students. B.E.S.T. badges career readiness competencies outlined by the National Association of College and Employers (NACE).¹⁷ Another option is to align credential standards with industry-recognized standards from professional organizations such as the Project Management Institute, the Society for Human Resource Management, or others. This can help to demonstrate how the microcredential solves a real problem that industry is facing.

Situate the microcredential design within the broader academic ecosystem

Designing microcredential offerings inherently reflects an expansion beyond traditional academic degree programs. Whereas the design of degree programs typically follows an established formula, there are a number of new variables that go into creating microcredentials. Further, it is important to evaluate how these new microcredential offerings will relate to your existing academic programs and fit within the broader learning ecosystem. For example, determining whether or not a microcredential can count toward a bachelor's or master's degree or whether or not microcredential learners will have access to student support services all affect how microcredentials are positioned within your institution and in the external market.

Consider the following steps when embarking on designing your microcredential model. First, create an institution-wide definition of a microcredential or

15. Shawn D. Felton, Glenn Whitehouse, Clay Motley, Dave Jaeger and Aysegul Timur, “How I stopped fearing micro-credentials and began to love digital badging – a pilot project,” *Industry and Higher Education* 37, no. 2 (2023): 309-317, <https://journals.sagepub.com/doi/full/10.1177/09504222221117951>.

16. Sherri Braxton, “Creating a Digital Badge Taxonomy to Foster Shared Meaning,” *EDUCAUSE Review*, September 27, 2022, <https://er.educause.edu/articles/2022/9/creating-a-digital-badge-taxonomy-to-foster-shared-meaning>.

17. “Badging Essential Skills for Transitions (B.E.S.T.),” University System of Maryland Center for Academic Innovation, January 26, 2018, <https://www.usmd.edu/cai/usm-digital-badging-initiative>.

Special considerations for stackable credentials from AACRAO²³

- Determine if levels of credentials may be stacked to lead toward larger credentials: examples include microcredentials stacking toward a certificate, and certificates earned as stand-alone credentials or that stack toward a degree
- If stackable, must they be completed in a sequential order? In other words, are they prerequisites for other credentials?
- Consider opportunities for reaching new markets of learners

use an existing definition provided by groups such as UNESCO,¹⁸ UPCEA,¹⁹ or AACRAO.²⁰ This will provide unity and clarity on microcredentials relative to your pre-existing academic programs. Once a definition is established, create guidelines for the design and structure of microcredentials at your institution in order to provide internal stakeholders with a blueprint on how to develop new microcredentials. Consider creating a curricular approval process similar to your existing accredited programs to enable cohesion and quality assurance across your institution.²¹

Selected variables of microcredential design²²

- **Academic credit** - Microcredentials can be offered as either non-credit or for-credit learning opportunities. Some microcredentials begin as non-credit learning modules and can later be translated into academic credit.
- **Stackability** - Standalone microcredentials can be designed to stack together to create a macro-level credential such as a certificate or even a degree
- **Curriculum** - Microcredentials can be developed by modularizing existing curriculum into smaller chunks or investing in building credentials from the ground up

- **Grading** - Some microcredentials are designed to be pass/fail while others incorporate letter grades
- **Assessment** - The process by which a student demonstrates learning – via assessment, portfolio, lab, assignments, etc.

Partnerships: Considerations for working with employer and community partners

Interest in microcredentials and digital credentials is growing among employers.²⁴ This is amplified by the increasing adoption of skills-based hiring practices that emphasize a person's skills rather than their degrees. Given the recognized value of industry-aligned education, employer and community partners are important contributors to a microcredentialing strategy. Consider these questions:

- Will they co-design the microcredential along with you – and if so, what are partners' contributions and responsibilities? Will they co-brand the credential?
- Will partners provide feedback on the components (e.g. skills) that your microcredentials address? What artifacts and evidence can support this?
- How will partners recognize the microcredentials in their recruiting, hiring, and staff mobility practices?

18. Beverley Oliver, *Towards a common definition of micro-credentials*, (Paris, France: UNESCO, 2022), <https://unesdoc.unesco.org/ark:/48223/pf0000381668#:~:text=A%20micro%2Dcredential%3A%20%E2%80%A2%20is,awarded%20by%20a%20trusted%20provider.>

19. "92% of Higher Education Leaders Say Microcredentials Support Institutional Competitiveness," UPCEA, July 20, 2021, <https://upcea.edu/92-of-higher-education-leaders-say-microcredentials-support-institutional-competitiveness/>.

20. Erin Mason, "SEM Live - Microcredentials and Badges: Understanding and Implementing," American Association of Collegiate Registrars and Admissions Officers, November 15, 2021, <https://www.aacrao.org/resources/newsletters-blogs/aacrao-connect/article/sem-live---microcredentials-and-badges-understanding-and-implementing.>

21. Andrew Fisher, "Defining a Microcredentialing Strategy," February 23, 2023, in *Illumination by Modern Campus*, episode 85, <https://moderncampus.com/podcast/episode-eightyfive.html>.

22. *Alternative Credentials: Considerations, Guidance and Best Practices* (Washington, DC: AACRAO, July 12, 2022), <https://www.aacrao.org/research-publications/work-group-reports-archived.>

23. *Alternative Credentials*, AACRAO

24. Alex Engler, "Encouraging interoperability to help learners in the digital credential marketplace," Brookings Institution, October 17, 2022, <https://www.brookings.edu/blog/techtank/2022/10/17/encouraging-interoperability-to-help-learners-in-the-digital-credential-marketplace/>.

Watch the direction that employers are taking with microcredentials since the demand in corporate settings will ultimately create more demand at your institution. Forward-thinking employers that are using skills-based hiring strategies or a consulting model to assemble project teams may be ideal partners. Interoperable microcredentials (microcredentials that are publicly accessible through the use of linked open data formats) can provide a way for employers to validate the skillsets of new hires and internal employees.²⁵

Storing, managing and issuing microcredentials

Managing microcredentials will look different than methods of recording and issuing traditional academic degrees and certificates. Whereas university registrar offices meticulously oversee student academic records, microcredentials have yet to be integrated into these systems in a standardized way.

AACRAO states that best practices in recording microcredentials include, at a minimum, to retain information regarding the learners who have earned the credential along with the criteria to earn it. An artifact (either digital or physical) should be provided in order to signal completion. In recent years, a host of technology platforms have been created to aid in the storing and issuing of microcredentials. Introducing a new technology system to your institution comes with its own considerations, and can have some parallels to the process of selecting a learning management system or similar technology.

Selected technology considerations

- How does the microcredentialing platform integrate with your existing platforms such as a student information system (SIS) or learning management system (LMS)? What types of analytical capabilities are available?
- What range of activities can result in a credential being issued, and how does this map to existing technology systems?
- Beyond a pilot, what level of scale is ultimately anticipated, and can the platform accommodate this scale?
- Will the institution award and record the credential, or will this be handled by an outside partner or educational platform?
- Are the microcredentials intended to exist in digital form – e.g. using the Open Badge format that supports added evidence and verification?
- Does the technology platform for microcredentials support common standards? Are the credentials portable to another system in the event of a change in infrastructure partners?

25. Sharon Leu, "Credential Interoperability," (Webinar, FY 2020 Education Stabilization Fund - Reimagine Workforce Preparation Grants Program, Office of Educational Technology, US Department of Education, July 16, 2020), https://studentprivacy.ed.gov/sites/default/files/resource_document/file/CARES%20ILR%20%5B07.16.2020%5DFinal.pdf.



STRATEGIC CONSIDERATIONS

Our team has compiled this chart of considerations for microcredential strategy and implementation, based on the wide range of sources consulted for this brief. A powerful strategy will optimize the relationships between these components. Component parts on the left are explained in the middle column, and put into action with guiding questions in the right column. This table is meant to serve as a general reference for getting started, but should not be considered exhaustive of the entire implementation process.

STRATEGY COMPONENT	STRATEGIC ACTIONS	GUIDING QUESTIONS
People	<p>Convene key policy and operations stakeholders, both internally and externally;</p> <p>Gain internal buy-in</p>	<ul style="list-style-type: none"> • Who are the immediate people and/or departments that need to be represented to inform strategy? • How will external stakeholders be identified and managed? • How will the benefits of microcredentials be communicated to key stakeholders, such as faculty? • Who will champion microcredentials? • Will microcredentials be launched in phases? Over several years?
Outcomes/ROI	Determine what “success” means for microcredentials implemented by your institution	<ul style="list-style-type: none"> • What metrics will you use to evaluate success of a microcredential initiative? • How will you track the impact microcredentials are having on your brand?
Governance	Determine a governance model for creating new microcredentials and overseeing them	<ul style="list-style-type: none"> • What is the relevant governance and administrative process for proposing a new microcredential? • Will approval be centralized to one office or decentralized across academic units? • How often can new microcredentials be created?
Learning Design	Design the learning experience embedded within the microcredential(s)	<ul style="list-style-type: none"> • Will all microcredentials adhere to a specific format? How will completion be determined? By time spent or via assessment? • Will the microcredential be pass/fail or will students earn a letter grade? • What skills and competencies does the microcredential align to?
Quality Assurance	<p>Establish an institution-wide quality assurance framework</p> <p>Decide how, and at what cadence, the quality of each microcredential will be measured</p>	<ul style="list-style-type: none"> • Who determines whether the framework has been applied consistently across credentials? What types of training or skills does that require? • Who is overseeing the full portfolio of offerings in order to monitor for and prevent redundancy? • How often will the microcredential need to be updated or refreshed?

STRATEGY COMPONENT	STRATEGIC ACTIONS	GUIDING QUESTIONS
Finance	Collaborate with key units to develop a financial model for developing and offering microcredentials	<ul style="list-style-type: none"> • Will faculty and/or academic units be compensated for developing microcredentials – and how might this vary from compensation for traditional offerings? • What will the revenue generation model be credit and non-credit microcredentials? • Will sponsorships (e.g. employer partnerships) be sought for cost-sharing?
Marketing and Branding	Establish cohesive marketing and branding guidelines to be adopted institution-wide	<ul style="list-style-type: none"> • Who will oversee quality assurance of branding? • Who will develop and maintain branding guidelines? • Who will finance microcredential marketing efforts? • What are branding/marketing guidelines for co-developed microcredentials (e.g. employer-sponsored credentials)?
Enrollment and Admissions	Set admission or enrollment requirements for the microcredentials	<ul style="list-style-type: none"> • Will admission criteria vary across microcredentials? • Will the microcredentials only be accessible to students enrolled in a degree program? • Can non-college students enroll, and if yes, will they need to submit a formal or modified application?
Technology	Determine and/or integrate a microcredentialing platform to record and award the digital credentials	<ul style="list-style-type: none"> • Who will award and record the credential? • How does the platform supporting microcredentialing integrate with other systems? • Are the credentials portable to another system?



The following brief case study vignettes provide examples of the ways higher education institutions have designed and implemented microcredentials, including a number that are in collaboration with employers, community organizations, and government bodies. These particular examples are sourced from publicly available information and are curated to provide real-world illustrations of the themes from the preceding guidelines and considerations in this primer.

University and industry partnership: Indiana University East & Belden, Inc. recruit new students, and upskill employees

Indiana University East (IU East) and fiber optic cable manufacturing company Belden Inc. partnered to pilot a microcredential on professionalism in the workplace in response to feedback from local employers that workers often lacked soft skills (or “employability skills”) for professional growth and promotion.²⁶ The 5-week, non-credit microcredential covers communication, social media, dressing for the workplace, managing professional relationships, goal setting, conflict resolution and leadership. Ten employees enrolled in the program, which is self-paced and offered online, earning a certificate of completion. Each week’s content is divided into three, 20-minute sections and includes a weekly reflection piece to provide instructors with real-time feedback.

Feedback from the pilot was positive – participants felt the course workload was manageable and liked that it was self-paced. Participants found ways to enhance their existing skills, while learning new skills and tools to help manage challenges in the workplace. The pilot was implemented by representatives from IU East’s Department of Academic Affairs and the Office of Career Services and Internships, and is part of IU East’s community engagement efforts related to meeting the needs of employers. For Belden, the initiative fits into its succession planning efforts to retain employees and improve advancement.

Recognition of co-curricular activities: Penn State University

Institutions have also found it beneficial to use microcredentials to recognize learning in co-curricular activities. For example, Pennsylvania State University’s library created digital badges to recognize students’ knowledge of information literacy.²⁷ Students participating in Penn State’s World Campus English language program can complete the “Library Connection” series of badges – 10 introductory level badges focused on library basics such as requesting books or understanding academic integrity. The 10 introductory badges build into three broad categories of information literacy that leads to a summative “Uber Badge” indicating a holistic understanding of information literacy. According to the university, the program has led to significant improvement in the quality of sources and citations in students’ academic work.

Non-credit to credit pathways: Rutgers University

Rutgers University implemented non-credit to credit pathways – which translate non-credit achievements into credit toward a degree – in an effort to create on-ramps to degrees and appeal to non-traditional learners.²⁸ While non-credit achievements, like certifications and badges, are prolific in higher education, intentional non-credit to credit pathways are a fairly new phenomenon. The University Professional and Continuing Education Association (UPCEA) reports that institutions engaged in non-credit to credit pathway activities say that their greatest challenges were system barriers, gaining faculty buy-in, and transfer evaluation policies.²⁹

Rutgers University offers a non-credit “Mini Master of Business Administration” with concentrations such as business essentials, artificial intelligence, digital marketing and healthcare management. This microcredential results in a certificate of completion, a digital badge, and can be used to fulfill a 3-credit elective in a full Rutgers MBA program.³⁰

26. Hali Cartee, “Micro-credential pilot program celebrates first cohort with Belden Inc.,” Indiana University East, March 14, 2023, <https://www.iue.edu/news/micro-credential-pilot-program-celebrates-first-cohort-with-belden-inc/>.

27. “Online Students Use of the Library,” PennState University Libraries, last modified April 4, 2023, <https://guides.libraries.psu.edu/c.php?g=516093&p=3540444>.

28. James Fong, Gail Ruhland, Lynda Wilson, Sandra von Doetinchem, and Bruce Etter, *Non-Credit to Credit Pathways to Higher Education* (Washington, DC: UPCEA, April 2021), https://upcea.edu/wp-content/uploads/2021/06/UPCEA-MindEdge-Report-Noncredit-to-Credit-Pathways-to-Higher-Education_April-2021.pdf.

29. James Fong, *Non-Credit to Credit Pathways*.

30. “Mini-MBA: Business Essentials,” Rutgers Business School, <https://www.business.rutgers.edu/executive-education/business-essentials>.

Microcredentials for earned admission: Arizona State University (ASU)

ASU's Mastery Certificates allow students to earn an industry-recognized credential in in-demand skills, while earning credit and/or admissions to a bachelor's degree.³¹ Currently three Mastery Certificates are offered in information technology support, applied business data analytics, and project management. The certificates consist of 4 to 6 courses totaling 12 to 18 credit hours that can be later converted to academic credit and applied to an ASU transcript. The information technology certificate is co-branded and leverages the Google IT Support curriculum and Google's employer consortium, with 75% of Mastery Certificate graduates reporting a positive career outcome in six months.³²

The certificates are part of a broader initiative, through Universal Learner Courses (ULC), designed to provide learners with on-ramps into degrees – including if an applicant does not satisfy ASU's admission requirements.³³ Any person can complete a non-credit course for \$25, and pay a \$400 fee to convert it to credit. Non-college students, including high school students, can enroll in ULCs without having to submit an application to ASU, providing an opportunity for individuals to engage with college coursework at a low barrier to entry. Students can “earn” admission to ASU by completing 24 credit hours (or 12 credit hours for those 22 years old or older) with a GPA of 2.75 or higher. Students not interested in attending ASU can transfer their completed credits to any university that accepts ASU credits.

System wide strategy: State University of New York (SUNY)

In 2018, SUNY became one of the first higher education systems to adopt a broad microcredential policy that would apply to all of its 64 campuses. The policy framework was a result of a university-wide task force that focused on how to ensure academic quality and rigor, flexibility and responsiveness, while also allowing campuses the flexibility to launch microcredentials that enabled local faculty innovation. Their microcredentials are born out of collaboration with existing students, existing employees, adult learners, alumni, and business, community and P-12 partners. This stands as an important example of a system-wide, flexible policy framework. The key policy elements in the approach included four things: (a) a SUNY-specific definition of microcredentials, (b) guiding principles for developing microcredentials, (c) alignment to market needs and professional standards, and (d) a decision to support a broad range of microcredentials.³⁴ Microcredentialing also enabled SUNY to enhance its existing apprenticeship programs by aligning the required education component of each New York State Department of Labor Registered Apprenticeship to a microcredential. This provides apprentices with a stackable credential and a pathway into an associate or bachelor's degree program.

Meeting local skills demands: Colorado Community College System's badging efforts

In 2013, the Colorado Community College System (CCCS) found the demand for manufacturing skills in the region was growing at a far greater rate than it could produce graduates.³⁵ Further, employers struggled to find qualified candidates due to the lack of discrete skills information provided by traditional academic transcripts. In partnership with local employers, CCCS designed 11 digital badges based on a progressive level of skills, embedded in the Associate of Applied Science degree program. Students had the flexibility to enter or exit the program at their discretion – whether they earned one or several badges – allowing them to earn immediate employment, while still giving them the option to return and finish their degree later.

The badges took approximately 18 months to develop and were created through a series of summits in which local manufacturers provided input on skills shortages and gaps, and mission-critical positions that were unfilled. A year later, CCCS expanded the digital badging program to three other degree programs in high-demand areas: engineering, information technology and healthcare.

In 2022, CCCS, in partnership with the Education Design Lab, was awarded a grant to build five “micro-pathways” in energy and healthcare in order to meet skills demand in the area. In 2023, the initiative received additional funding to expand from five to eight micro-pathways in order to meet continued growing demand in the area. The micro-pathways were designed with input from learners and employers and consist of two or more stackable credentials that can be completed in a year or less. Selected CCCS colleges will participate in the design process and help pilot the new pathways.³⁶

31. “Mastery Certificates,” Universal Learner Courses, Arizona State University, <https://ea.asu.edu/certificates/>.

32. “ASU Google IT Certificate,” Universal Learner Courses, Arizona State University, <https://ea.asu.edu/certificates/google-it-cert/>.

33. “About ASU Universal Learner Courses,” Arizona State University, <https://ea.asu.edu/about/>.

34. “Our Story: Building SUNY's Microcredential Program and Initial Lessons Learned,” The State University of New York, <https://www.suny.edu/microcredentials/program-development/>.

35. Brenda Perea, “Using Smaller Credentials to Build Flexible Degree Completion and Career Pathways,” *New Directions for Community Colleges*, no. 189 (2020): 23-37. <https://doi.org/10.1002/cc.20395>.

36. “CCCS Expands Micro-Pathways,” Colorado Community College System, January 19, 2023, <https://cccs.edu/cccs-news/cccs-expands-micro-pathways/>.

A portfolio of badges: Florida Gulf Coast University (FGCU)

In 2019, in response to workforce demands in the region, FGCU launched the strategic initiative, “FGCU Micro-credentencing and Digital Badges.”

The initiative’s first task involved collaborating with a local employer to create an academic course on medical devices and a supplemental digital badge – the Medical Device Industry Badge. The badge is optional and earned through additional assessment, and only open to students who received a letter grade of B or better in the course. Through an agreement with the employer partner, students who earn the badge are guaranteed an interview for employment.

FGCU outlines lessons learned from its pilot program:

- The need to broaden faculty and staff support beyond the initial champions and guard against top-down perceptions
- Diversify industry partners so efforts are not tied to one specific company
- Design a way to scale up faculty support that involves a new model for compensation
- Website and marketing that supports a culture for micro-credentials
- Hire a dedicated full-time staff member

FGCU is further building out its microcredentialing initiative and will offer three types of badges: 1) industry specific badges for skill development in a particular career area, 2) Core Skill badges recognizing NACE (National Association of Colleges and Employers) “transferable skills,” and 3) Continuing Education & Skills Academy badges that provides re-skilling and upskilling for students, alumni, and regional working professionals.³⁷

Digital badges anchored in experiential learning and aligned with employer talent development needs: Northeastern University

Northeastern University’s Roux Institute, located in Portland, Maine, is designed to spur economic growth and develop talent pipelines for Maine-based companies through collaborative partnerships between industry, academia, and state and municipal government. In one such model, the Roux Institute partnered with L.L. Bean to develop a digital badge in marketing analytics, customized to the specific learning and development needs of the L.L. Bean workforce.

Recognizing a mutually beneficial opportunity to highlight the integration of academic learning and workforce development, Northeastern developed “NU@Work” branding that is applied to any digital badge developed in conjunction with workforce partnerships, including those delivered through well-established channels such as executive education, and other types of professional development. True to Northeastern’s experiential learning brand, NU@Work badges signal the alignment of the curriculum to “real world” training needs while highlighting how the microcredential earner applied those skills in conjunction with workplace projects. Northeastern’s employer partners can use NU@Work badges as a way to simultaneously showcase their employees’ growth and learning achievements and their unique connection to the Northeastern brand.

Cross-sector microcredentials: University of Maine System (UMaine)

With support from Lumina Foundation’s All Learning Counts initiative, the University of Maine System collaborated across sectors to develop microcredentials targeted toward incarcerated or low-income individuals, Native Americans, and immigrant refugees.³⁸ Stakeholders included Maine community colleges, the Department of Education, Department of Labor, Department of Corrections, and state libraries. Drawing from existing curriculum, the microcredentials were developed collaboratively, and are competency-based and learner-owned. UMaine further created microcredential guidelines for its seven campuses in order to maintain quality and decrease confusion around adopting and implementing microcredentials across the UMaine system.

Lumina Foundation outlined a number of insights gleaned from grantees participating in the All Learning Counts initiative, which includes the University of Maine System: 1) the need to build bridges from non-credit to for-credit programs so learners can enter, leave and re-enter the institution; 2) collaborators need to focus on addressing policies that create barriers, and expand opportunities for students by sharing student data across race, ethnicity, age and other demographics; 3) institutions need to ensure that employers understand what credentials signify and how they can be useful in the hiring process.³⁹

37. Shawn D. Felton, “How I stopped fearing micro-credentials”

38. George Lorenzo, “Part III – IMS Summit Session Explainer: Micro-credentials at UMaine,” *Workforce Monitor*, March 31, 2022, <https://wfmonitor.com/2022/03/31/part-iii-ims-summit-session-explainer-micro-credentials-at-umaine/>.

39. Wendy Sedlak, “All learning counts: Creating new paths to college credit,” Lumina Foundation, June 8, 2022, <https://www.luminafoundation.org/news-and-views/all-learning-counts-creating-new-paths-to-college-credit/>.

LOOKING TO THE FUTURE

Multi-institution collaboration in microcredentialing: Education Design Lab

Nonprofit Education Design Lab is working to identify specific 21st century skills, or universal skills, most in-demand by employers.⁴⁰ In collaboration with 20 higher education institutions and 60 employers, the Lab designed a suite of microcredentials that can be deployed by universities and other groups. The topics include self-directed learning, empathy, oral communication, critical thinking, resilience, intercultural fluency, collaboration, creative problem-solving and initiative. Learners must demonstrate mastery via a performance-based assessment in four sub-competencies, and upon completion are awarded a digital badge. Thus far, more than 800 higher education institutions and 125 K-12 districts are using the microcredentials via a free toolkit. The Education Design Lab further provides information on its microcredential design framework, described as a continual process to learn, practice and reflect. The framework outlines three areas:⁴¹

- Knowledge: Deep learning that incorporates multi-modal material targeted at each skill's sub-competencies
- Assessment: Multiple, ongoing, and varied measurements for learners to understand, target, and transform their skills
- Experience/Reflection: Direct application and practice of the sub-competencies skills so learners can activate the skills in varied contexts

It goes without saying that the microcredentials field continues to develop rapidly – and in ways that are shaped by major economic and technological developments outside of the education sector. Our rationale for developing this guide today reflects that the practice of awarding microcredentials is now moving from a group of early adopters and into the mainstream of higher education, both in the U.S. and worldwide.

The value proposition of microcredentials is that these new constructs and practices respond to the contemporary demands being placed on higher education for industry-aligned programming, greater affordability, more flexible pathways to credential attainment, and more personalized learning. Taking time to develop system-wide strategy and solid policy around microcredentials can allow institutions to scale up new types of cross-sector, multi-institution collaborations.

As more institutions and systems develop and issue microcredentials, consumer and employer awareness of these programs is continuing to grow. With funding from government agencies and private philanthropies, a large number of standards bodies, industry associations, technology firms, and others are working aggressively to build the technology infrastructure to support microcredentialing. Quality assurance bodies (such as institutional accreditors) are taking note, and beginning to revise their standards and policies to support and even encourage these educational innovations. Ultimately, the future of microcredentialing will be shaped by higher education practitioners responding to emerging student needs and the demands of industry through thoughtful strategic approaches.



40. "The Lab's 21st Century Skills Micro-credentials," The Education Design Lab, <http://eddesignlab.org/microcredentialing/microcredentials/>.

41. "The Lab's 21st Century Skills Micro-credentials: Pedagogy," The Education Design Lab, <http://eddesignlab.org/microcredentialing/microcredentials/pedagogy/>.