

Playbook for Certification + Degree Pathways



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The League for Innovation in the Community College (League for Innovation) is an international nonprofit organization with a mission dedicated to cultivating innovation in the community college environment by forging strategic partnerships and empowering individuals to drive educational transformation. Founded in 1968 by B. Lamar Johnson and a dozen U.S. community and technical college presidents, the League for Innovation has proudly served community college institutions for over 50 years.

About the Playbook:

This playbook was prepared by the League for Innovation, in partnership with Workcred, Higher Learning Commission, Community College of Aurora, Delta College, Kirkwood Community College, and Moraine Valley Community College, with support from ECMC Foundation.

The views expressed herein are those of the authors and do not necessarily represent those of ECMC Foundation, its officers, or employees.

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www.ecmcfoundation.org

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16000 E. CentreTech Parkway
Aurora, CO 80011



<https://ccaaurora.edu>

The Community College of Aurora (CCA) is a two-year public, open access institution in Aurora, Colorado and is one of 13 community colleges in the Colorado Community College System. The school of choice for 12,111 students representing over 60 countries, CCA's service area includes nearly 690,000 residents in Arapahoe, Adams, and Denver counties, and its student population reflects the broad diversity of this area. The college offers 77 degrees and certificate programs for students seeking to enhance their current skill set, pursue employment, or transfer to a four-year college or university upon graduation.

Delta College
1961 Delta Road
University Center, MI 48710



<https://www.delta.edu>

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230 S. LaSalle Street, Suite 7-500
Chicago, Illinois 60604-1411



www.hlcommission.org

HLC is an independent agency, founded in 1895, that accredits degree-granting colleges and universities in the United States. HLC is an institutional accreditor, accrediting the institution as a whole. HLC's mission is to advance the common good through quality assurance of higher education as the leader in equitable, transformative, and trusted accreditation in the service of students and member institutions.

Kirkwood Community College
6301 Kirkwood Boulevard, SW
Cedar Rapids, Iowa 52404



<https://www.kirkwood.edu>

With more than 140 majors and programs, Kirkwood Community College boasts 16,000 annual college-credit students, while maintaining one of the lowest tuitions in the state. All degree-seeking students are eligible for federal financial aid and the college offers more than \$3 million in scholarships each year to students from all walks of life. Kirkwood is a convenient, innovative and visionary educational leader that strives to remain affordable and accessible.

Moraine Valley Community College
9000 College Parkway
Palos Hills, IL 60465



<https://mvcc.edu>

Moraine Valley Community College District 524 is a two-year institution of higher education founded in 1967. Located in Palos Hills, the college serves 26 communities in the southwest suburbs of Chicago and offers more than 140 degree and certificate programs accredited by the Higher Learning Commission. Students interested in transferring to four-year colleges or universities can earn associate degrees in six different disciplines. The college also offers classes and programming at its Education Center at Blue Island and Southwest Education Center in Tinley Park.

Workcred, Inc.
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Formed in 2014, Workcred is an affiliate of the American National Standards Institute (ANSI). Its mission is to strengthen workforce quality by improving the credentialing system, ensuring its ongoing relevance, and preparing employers, workers, educators, and governments to use it effectively. Workcred's vision is a labor market that relies on the relevance, quality, and value of workforce credentials for opportunities, growth, and development.

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About Certification + Degree Pathways

The practice of embedding industry credentials like certifications into degrees (C+D pathways) is common at community colleges.¹ Embedding refers to a college's alignment of its degree curriculum with an industry credential, although the approach a college may take varies as it seeks to better serve its learners and leverage its existing resources. A 2017 study among 149 U.S. colleges and four-year institutions by Lumina Foundation found that the most commonly cited benefit of C+D pathways was that it enabled students to earn valuable industry and academic credentials at the same time.² The study also showed that C+D pathways helped colleges and universities align their curricula with prevailing industry standards.

Certifications are distinct from other credentials because they are awarded after an individual demonstrates acquisition of a set of skills through a standardized assessment (e.g., oral, written, or performance-based). Additionally, certifications must be renewed after a designated period of time and can be revoked for incompetence or unethical behavior. Individuals must meet qualifications such as training and experience that are required prerequisites to take the certification examination. Certifications are awarded and tracked by certification bodies—typically nonprofit organizations, professional associations, industry/trade organizations, or businesses. According to Credential Engine, more than 7,000 industry-recognized certifications are offered across numerous industry sectors including healthcare, education, finance, IT, cybersecurity, manufacturing, retail, and hospitality.³



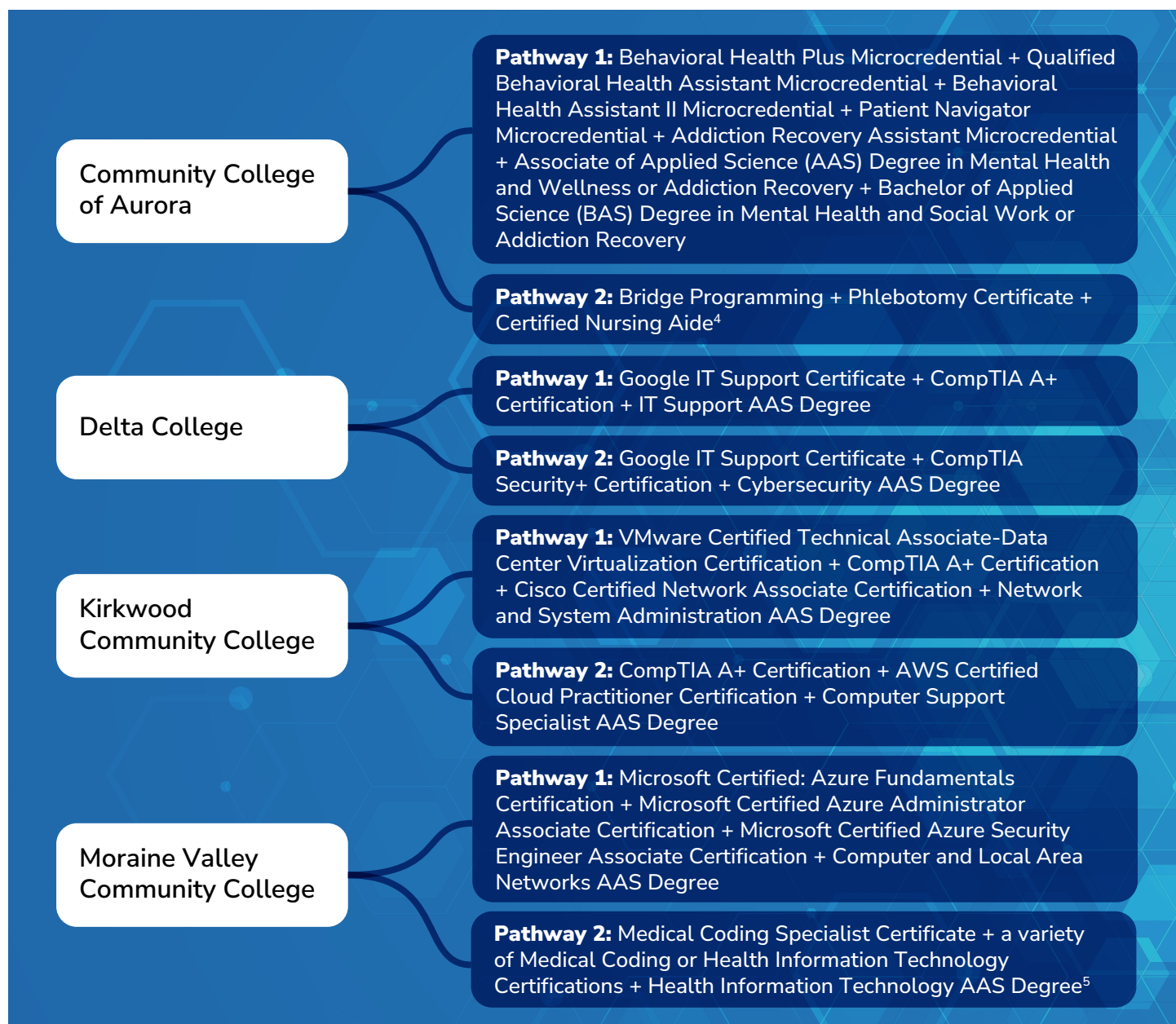
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- 1 Michael Prebil and Mary Alice McCarthy, *Building Better Degrees Using Industry Certifications Lessons from the Field* (New America, Education Policy, and Center on Education & Skills, September 17, 2018), <https://www.newamerica.org/education-policy/reports/building-better-degrees-using-industry-certifications>.
 - 2 Holly Zanville, Kelly Porter, and Evelyn Ganzglass, *Report on Phase I Study: Embedding Industry and Professional Certifications within Higher Education* (Lumina Foundation, January 2017), <https://www.luminafoundation.org/files/resources/report-on-phase-i-study-embedding-industry-professional-certifications-within-higher-education-january-2017.pdf>.
 - 3 Counting U.S. Postsecondary and Secondary Credentials (Credential Engine, 2022), https://credentialengine.org/wp-content/uploads/2023/01/Final-CountingCredentials_2022.pdf.

About the Project

This project brought together a unique group of partners to explore effective ways to develop and launch new C+D pathways. Workcred, the Higher Learning Commission, and the League for Innovation in the Community College were joined in this endeavor by four community colleges—Community College of Aurora, Delta College, Kirkwood Community College, and Moraine Valley Community College.

Eight pathways, two at each institution, were developed as part of this project (see Figure 1).

Figure 1: Credential Pathways for Each Institution

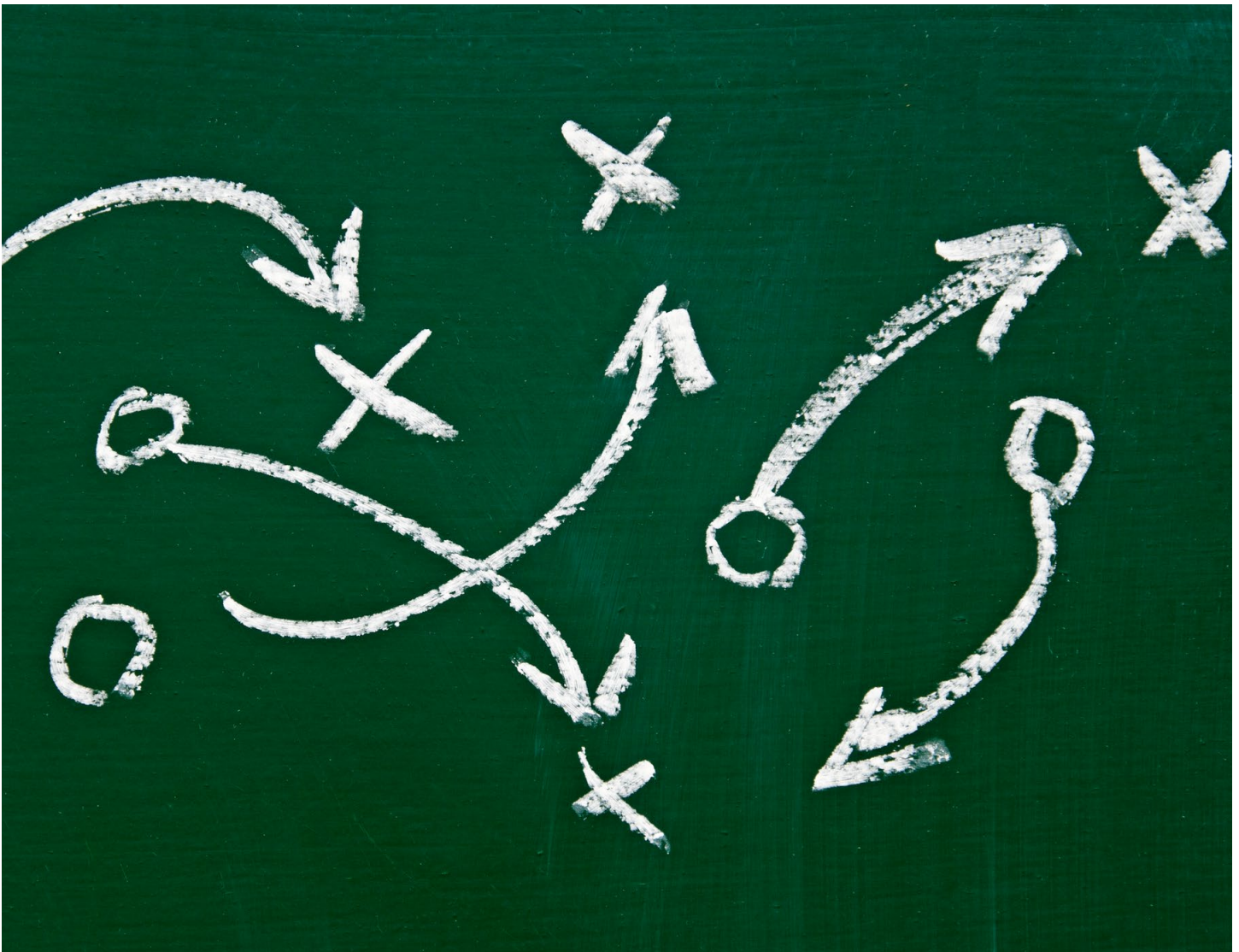


⁴ Author's note: This pathway is currently paused due to instructor availability.

⁵ Author's note: Although this pathway was established prior to this project, it was included to highlight the need to obtain aggregate and/or student-level certification exam data results.

This playbook is part of a series of reports developed to highlight all or some of the C+D pathways from each of the colleges that participated in this project, as well as the common challenges and insights that were uncovered during this project. Further details can be found in the following related publications:

- » [**Creating Credentialing Pathways in Behavioral Health: A Case Study about Community College of Aurora**](#)
- » [**Building Credentialing Pathways Using Credit for Prior Learning: A Case Study about Delta College**](#)
- » [**Designing Credentialing Pathways in IT: A Case Study about Kirkwood Community College**](#)
- » [**Medical Coding and Health Information Technology Pathways: A Case Study about Moraine Valley Community College**](#)
- » [**How Certification Bodies Can Support Colleges' Efforts to Integrate Certifications into Academic Programs**](#)
- » [**Promising Practices: Certification Plus Degree Pathways**](#)



Playbook for Certification + Degree Pathways

Developing a Certification + Degree (C+D) pathway in a community college creates an integrated framework that meets student needs as well as job market demands. C+D pathways combine the practical benefits of integrating third-party, industry-specific certifications with college certificates of completion and degree programs. They offer students a flexible education that prepares them for immediate employment and future career growth or advancement. These pathways support all students, including first-generation, low-income, and adult learners who are often served by community colleges.

The playbook serves as a detailed guide for community colleges interested in adapting or replicating the success of the C+D pathways project. It provides actionable insights, best practices, and practical tools to support institutions in developing and implementing similar programs. While the playbook contains general insights and is broadly applicable, it is based in part on learnings from the C+D pathways programs in IT and healthcare that the project colleges developed.

Navigating the Playbook

This playbook is organized to facilitate planning and implementing C+D pathways. Each section provides essential information, strategies, and resources to inform your work and guide you through the process. Due to the playbook's organizational structure, similar information may appear in multiple sections to facilitate searches by area of interest. The first sections provide background information, considerations for developing pathways, and a discussion of key stakeholders to involve in the process. Step-by-step guides to planning are included in five sections: Planning for Development and Design, Planning for Outcomes and Evaluation, Planning for Student Success Support, Planning for Regulatory Oversight, and Planning for Sustainability. The Implementation Steps section details the process for carrying out the plans. Final sections of the playbook provide challenges and ways to overcome them, concluding remarks, and a brief glossary of terms.

Overview of Certification + Degree Pathways

In today's rapidly evolving job market, the importance of C+D pathways cannot be overstated. As technological advancements and global economic shifts redefine industries, employers increasingly value a combination of formal education and specialized skills. C+D pathways offer a strategic approach to career development, blending theoretical knowledge with practical expertise. Degree programs offer a comprehensive educational foundation, fostering critical thinking, problem-solving abilities, and a deeper understanding of broader concepts. A degree can open doors to

Certifications as discussed in this playbook are industry-specific credentials that enhance employability by providing a standardized third-party assessment of industry-recognized, validated skills. Certifications are also time-limited, must be renewed, and can be revoked for incompetence or unethical behavior.

advanced career opportunities and serve as a prerequisite for higher-level certifications and professional roles. College certificates of completion (CCLs) are shorter-term programs, typically focused on entry-level positions in the workforce. In addition, microcredentials may include even shorter-term learnings based on specific knowledge or skills. Certifications as discussed in this playbook are industry-specific credentials that enhance employability by providing a standardized third-party assessment of industry-recognized, validated skills. Certifications are also time-limited, must be renewed, and can be revoked for incompetence or unethical behavior. The combination of degrees, certificates, and certifications creates a robust portfolio demonstrating both depth and breadth of knowledge, making candidates more versatile and competitive in the job market.

The integration of C+D pathways will become even more critical as industries continue to innovate, and as the nature of work evolves, lifelong learning will be essential. Educational institutions and employers alike are recognizing the need for flexible, modular learning options that allow individuals to continuously upgrade their skills. This approach not only enhances employability but also supports career advancement and personal growth. Implementing C+D pathways can vary greatly, allowing colleges to tailor programs to their unique contexts.

Pathways can be structured to include:

- » **Sequential Courses:** Courses are arranged in an order that builds from basic to advanced skills.
- » **Bridging Credit and Non-credit Programs:** Pathways integrate credit and non-credit courses, providing flexible learning options for students.
- » **Stackable Credentials:** Certain types of credentials can build on one another, allowing students to earn credentials, such as microcredentials, college-awarded certificates, and certifications, incrementally that can accumulate as credit toward a degree.

Colleges can enhance their pathways by leveraging existing strengths:

- » **Existing Credentials:** Utilize established industry-developed certifications and degrees.
- » **Workforce Needs:** Align certificates, degrees, and programs with local and regional workforce demands.
- » **Faculty Expertise:** Ensure that faculty have and maintain relevant industry experience and expertise, which could include earning certifications.

C+D pathways are applicable across many industries, and may include college certificates of completion and certifications. Below are examples of industry sectors and occupations which have certifications:

- » **Information Technology (IT):** Certifications in cybersecurity, network administration, and software development.
- » **Health Sciences:** Certifications for medical assistants, medical coding, and health information management roles.
- » **Behavioral Health:** Certifications for addiction counselors, behavior technicians, and peer and family specialists.

- » **Manufacturing and Engineering:** Certifications in advanced manufacturing, engineering technology, and robotics.
- » **Business and Management:** Certifications in project management, business analytics, and entrepreneurship.

Considerations for Developing Certification + Degree Pathways

Figure 2: Factors to Consider When Developing C+D Pathways

Development and Design	Implementation and Delivery	Quality Assurance and Continuous Assessment
Guiding Principles		
Align the program with current and future industry needs through market research and regular stakeholder reviews.	Prioritize students' needs and experiences in all implementation efforts and ensure that the pathway is accessible, flexible, and supportive of diverse learning styles and life circumstances.	Maintain transparency in all assessment processes and outcomes.
Select a certification that is appropriate to the academic level and is accepted by local and regional employers.	Promote continuous collaboration with faculty, industry leaders, and community stakeholders for effective implementation.	Hold all stakeholders accountable for their roles in maintaining program quality and effectiveness.
Incorporate program design flexibility to serve diverse learners, including working adults and part-time students.	Ensure consistent curriculum delivery and strong student support systems (or administration) during implementation.	Implement rigorous data collection and analysis to monitor student outcomes and program success.
Maintain high academic standards to ensure the program's credibility and value.	Stay responsive to changes in industry demands and educational trends.	Engage students, faculty, industry partners, and alumni in the assessment and improvement processes.
Foster a supportive learning environment that encourages student engagement and success and provides ample opportunities for students to interact with faculty, industry professionals, and peers.	Implement sustainable practices to ensure the long-term viability of the program.	Prioritize student learning, achievement, and satisfaction in all quality assurance activities.
Implement processes for ongoing feedback, assessment, and program improvement.		Use stakeholder feedback to drive continuous improvements and ensure program adaptability to industry changes.

Developing C+D pathways in a community college involves creating an integrated educational framework that aligns with students' needs and job market demands. These pathways combine the immediate, practical benefits of certifications with a degree program's comprehensive, long-term advantages. It is vital to identify and establish an ecosystem that would include the right voices and players at the table, including learners, faculty, college administrators, employers, employees, certification bodies, and state regulatory agencies. The following is an overview of some factors to consider in setting up C+D pathways.

These pathways combine the immediate, practical benefits of certifications with a degree program's comprehensive, long-term advantages.

Key Stakeholders

Engaging key stakeholders in planning and implementation can help secure support and strengthen shared understanding of purpose and commitment to shared goals.

Students

C+D pathway programs are designed for student success. Engaging students in providing input on the relevance and effectiveness of the courses and the certification exams is important to the success of the program. Engaging students to actively participate in learning opportunities and utilize available resources is an important component of fostering success. Asking students to share their experiences to help improve and promote the pathways will enhance the continuous improvement of the programs.

Engaging students to actively participate in learning opportunities and utilize available resources is an important component of fostering success.

Faculty

Faculty are central to the development and success of the C+D pathways. In addition to teaching and assessments which meet academic and industry standards, they will design and align course content with competencies outlined on the certification exam blueprint. The blueprint provides information about the knowledge domains and the competencies that are assessed on the exam. Having opportunities for continual professional development to stay current with industry standards is key. Action steps for students and faculty are discussed in more detail throughout the playbook.

College Leadership

Strong and sustained support from college leadership, governing boards, and executive staff is critical to the success of C+D pathways. The commitment and vision of leadership creates the foundation upon which these initiatives can thrive. By positioning C+D pathways within strategic planning processes and outcomes, securing the right resources, developing effective policies, and advocating both internally and externally, college leadership ensures the long-term viability and impact of the program. Ideas for actionable steps in each of these areas are provided in the following paragraphs.

The commitment and vision of leadership creates the foundation upon which these initiatives can thrive.

Resource Allocation

Effective resource allocation is the cornerstone of implementing and sustaining C+D pathways. Leadership must take an active role in securing and allocating the financial, human, and technological resources necessary for program success.

Financial Investment

- » **Budget Planning:** Include C+D pathways in the college's annual and multi-year budget cycles, ensuring that funding covers program development, faculty training, and student support services.
- » **Grant Writing:** Proactively pursue state and federal grants as well as private foundation funding aimed explicitly at workforce development, adult learners, and underserved populations. Assign dedicated personnel to research and apply for relevant funding opportunities.
- » **Corporate Sponsorships:** Engage local and regional employers to provide financial support for pathway development in return for a trained workforce. This could include scholarships, equipment donations, covering the cost of certification exams, or sponsored internships.

Staffing

- » **Dedicated Roles:** Hire or assign dedicated program coordinators and staff to oversee the C+D pathways. These individuals should have a clear mandate to manage curriculum development, faculty coordination, student recruitment, and reporting.
- » **Full-time and Adjunct Faculty:** Ensure adequate staffing by engaging both full-time and adjunct faculty with expertise in the relevant fields. Offering professional development opportunities is also critical to ensure that faculty members stay current on industry standards and certification exam knowledge domains.
- » **Support Services Personnel:** Allocate resources for student advisors, career services professionals, and academic tutors to support students in C+D pathways, particularly first-generation, low-income, and adult learners who may require additional assistance.

Offering professional development opportunities is also critical to ensure that faculty members stay current on industry standards and certification exam knowledge domains.

Infrastructure and Technology

- » **Physical Resources:** Invest in upgrading or acquiring the necessary facilities and equipment to teach the skills and competencies assessed on certification exams. For example, IT programs may require advanced computer labs, while healthcare programs need simulation labs or medical equipment. Colleges need to have physical resources that faculty need to teach the knowledge and skills that are being assessed on the certification exams. In addition, the college might want to invest in becoming an authorized testing center from the test vendors that administer certification exams (e.g., [Pearson VUE](#)).
- » **Learning Management Systems (LMS):** Ensure that the institution's LMS can support nontraditional learning, such as microcredentials, short courses, and competency-based education. Leadership should work with IT departments to ensure that technology supports modular learning and stackable credentials.
- » **Remote Learning Platforms:** Ensure adequate investment in remote learning platforms and that certifications can be earned online, catering to adult learners who need flexible options. Some certification bodies allow online testing options. However, students must have the capabilities on their own computer to do this, such as downloading the online proctoring software, having a webcam, and having a minimum Internet speed. For example, [CompTIA](#) allows individuals to take the exam at home.

Policy Development

Supportive policies are essential to seamlessly integrate C+D pathways into the college's academic framework. Leadership can spearhead the development of policies that support both the operational and academic components of C+D pathways.

Curriculum Integration Policies

- » **Cross-crediting:** Develop clear policies for how certifications can count toward academic credits. Work with IT on how the Student Information System codes and reports certifications, and work with IT and the registrar's office on where the certification documentation is held, how it appears on transcripts, and what students take away upon completion. Work with accrediting bodies and state education agencies to formalize the recognition of prior learning and competency-based education so that students can use industry certifications toward degree completion.
- » **Stackable Credential Policies:** Establish policies that encourage stackable credentials, allowing students to complete certification exams while progressing toward associate or bachelor's degrees. Ensure that these policies are flexible enough to accommodate variations in certification requirements across different industries.
- » **Curriculum Alignment:** Develop processes for cross-walking curriculum to clearly demonstrate how knowledge, skills, abilities, and learning outcomes in third-party certifications and college programs/degrees are aligned.

Enrollment and Admissions

- » **Open Enrollment for C+D Pathways:** Consider policies that make C+D pathways open to a broad range of students, particularly adult learners and those with nontraditional backgrounds. Streamline admissions processes, removing unnecessary barriers.
- » **Credit for Prior Learning (CPL):** Develop CPL policies that allow adult learners to receive academic credit for prior work experience, military service, or existing certifications. These policies can incentivize working professionals and returning students to engage with the pathways.

Student Success and Retention Policies

- » Implement policies that require integrating student support services such as academic advising, career counseling, and mental health services directly into the C+D pathways. Ensure that financial aid advisors and career counseling staff understand C+D pathway programs. Advocating for mandatory touchpoints between students and support staff, especially during the early stages of the program, will help ensure that students have a seamless experience with the program.
- » Provide robust support services such as academic advising, tutoring, career counseling, and childcare services to support students from underserved backgrounds.
- » Establish targeted financial aid programs and scholarships for students pursuing C+D pathways. Offer clear guidance on financial aid options, including grants for short-term credential programs.
- » Ensure that students can access the necessary and emerging technologies for hybrid and online learning, offering laptop loan programs or technology stipends as needed.
- » Implement policies that encourage students to complete certification and degree components, such as providing priority job placement services through partnerships with local employers.
- » Assess early and often. Identify barriers to the C+D pathways student population's success and adjust in real time and for the long term.

Ensure that financial aid advisors and career counseling staff understand C+D pathway programs.

Articulation and Transfer Policies

- » **Inter-college Transfer Agreements:** Facilitate agreements with four-year institutions that allow students to transfer credits toward bachelor's degree programs. By collaborating closely with registrars and faculty, leadership can support the development of articulation agreements that uphold the value of both certifications and degrees.

Advocacy

College leadership is positioned to act as the program's primary advocates, building buy-in internally within the institution and externally with stakeholders, including policymakers, industry partners, and the community.

Internal Advocacy

- » **Engage Faculty and Staff:** Regularly communicate the importance of the C+D pathways to faculty, staff, and department heads by presenting data, success stories, and program metrics highlighting how these pathways align with the college's mission and goals.
- » **Faculty Champions:** Identify and empower faculty champions who can advocate for the pathways among their peers. Encourage these champions to lead workshops, webinars, and meetings to explain the benefits and best practices of integrating certifications into academic curricula.
- » **Cross-departmental Collaboration:** Foster collaboration among academic departments, workforce development, and student services. By emphasizing the interdisciplinary benefits of C+D pathways, leadership can create a shared vision and mutual accountability throughout the college.

External Advocacy

- » **Entrepreneurial Thinking:** Encourage entrepreneurial thinking, consider what is already in place, identify gaps to be filled, and create opportunities to fill them.
- » **Industry Engagement:** Work closely with local and regional employers to promote the program's benefits. Invite industry representatives to advisory boards and curriculum development meetings to ensure that pathways align with workforce demands. Industry representatives can provide information about certifications they value and recognize in their hiring processes.
- » **Employer Partnerships:** Build strong partnerships with businesses that will commit to hiring C+D pathway graduates, offering internships, or providing sponsorships. Hosting employer roundtables or annual workforce summits can be an effective way to strengthen these relationships.
- » **Community and Student Advocacy:** Promote the pathways to potential students, especially first-generation, low-income, and adult learners, by highlighting the real-world, employability-focused outcomes of C+D programs. Use targeted marketing campaigns, information sessions, and partnerships with community organizations for program promotion.
- » **Policy Advocacy:** Advocate for supportive state and federal policies such as funding for workforce development, flexible financial aid packages, and legislation recognizing industry certifications as applicable in awarding relevant college credit. Maintain active relationships with policymakers and contribute to conversations on workforce-aligned education reforms.
- » **Regulatory Agencies:** Collaborate with state and national regulatory agencies, as applicable, to ensure alignment and compliance.

Regional Employers and Advisory Boards

Engaging regional employers and advisory boards ensures that pathways meet local workforce needs. Their roles include advisory input – providing insights into industry requirements and trends; partnerships – offering internships, apprenticeships, and job placements for students; and curriculum validation – assisting in validating the relevance and rigor of the curriculum.

Certification Partners

Certification bodies are critical partners in developing relevant pathways for students. Their roles may include:

- » **Curriculum and Standards:** Work closely with certification bodies to co-design a curriculum that aligns with industry standards and academic requirements, ensuring that students gain relevant skills that meet current labor market demands. Some certification bodies, such as **Project Management Institute**, validate that an academic program meets specific quality and relevance standards. Some certification bodies, such as **CompTIA Academy Partner** and **EC Council Academia Partner**, have academic partner programs that provide benefits to colleges.
- » **Regular Advisory Meetings:** Establish regular communication channels and advisory meetings with certification partners to review program outcomes, discuss industry trends, and adjust the pathways as necessary to maintain relevance and quality.
- » **Joint Credentialing and Marketing Efforts:** Partner with certification bodies to develop co-branded credentials and marketing materials, promoting the value of the combined C+D pathways to prospective students, employers, and external stakeholders.

Certification bodies are critical partners in developing relevant pathways for students.

Accreditation and State Program Approval Bodies

Ensuring that programs meet accreditation standards and obtain state approval is critical. This process includes compliance – aligning programs with accreditation criteria and state requirements; documentation – maintaining thorough records of program development and outcomes; and continuous improvement – engaging in regular reviews and updates to maintain accreditation status.

Planning for Design and Development

Selecting a Certification

- » **Industry Relevance:** Choose certifications in demand in local and regional job markets. It is important the certifications are reviewed frequently to determine whether they are still relevant or should be retired, or new certifications should be adopted. While microcredentials/certificates developed by the community college can often be aligned to existing certifications, it is vital to create these credentials to meet emerging requirements as industry needs change.
- » **Student Interest:** Assess your student population's interests and career aspirations.
- » **Feasibility:** Evaluate the college's capacity to align the certification to coursework or embed it in pathways, including available faculty expertise, resources, and infrastructure.

- » **Classroom Setting Considerations:** Ensure that identified certifications align with the experience level and allocated study time for the majority of students and that content is aligned with the academic level and rigor of the college’s curriculum.

The following questions can be used to help determine which certifications have value and can support learners as they pursue their career goals. These questions can be answered using publicly available data.⁶

- » To what extent was industry involved in creating the certification?
- » Has industry provided any formal endorsements of the certification?
- » Is the certification accredited by a third party, such as ANSI National Accreditation Board (ANAB) or National Commission for Certifying Agencies (NCCA)?
- » Is the certification supported by a national or international standard (e.g., ISO/IEC 17024:2012, Conformity assessment—General requirements for bodies operating certification of persons)
- » To assess validity of skills, does the certification support a recognized occupation or specialty?
- » To assess the achievement of competencies, does the certification have a standardized examination?
- » To assess the maintenance of competencies, does the certification have processes for expiration, recertification, and revocation due to unethical or incompetent conduct?
- » To assess validity of skills, is this certification connected to state licensure? Which states recognize the certification (e.g., all, a majority)?

Potential Student Supports⁷

Create robust support systems specific to the C+D pathway and implement a tracking system to monitor student progress and provide timely interventions.

- » Academic Advising
- » Tutoring Services and Test Anxiety Support
- » Financial Aid and Scholarships
- » Career Services
- » Mental Health Counseling

⁶ *Understanding Quality: The Role of States in Supporting Quality Non-Degree Credentials* (Workcred and the National Governor’s Association, 2020), <https://workcred.org/Documents/Understanding-Quality-Workcred-NGA-Report-2020.pdf>.

⁷ Author’s note: See also Planning for Student Success Support section.

Market Research and Needs Assessment

- » Conduct thorough research to understand student interests, current job market trends, and the employers' skill needs to select the proper certification.
- » Engage with local businesses, industry leaders, and workforce development boards to gather insights about the skills and certifications they value.
- » Assess the college's capacity to align or integrate a third-party certification, including faculty expertise and available resources. Support professional development for faculty and explore the college's ability to host testing centers where students can take certification exams.

Curriculum Development⁸

- » Involve faculty, industry partners, and students in the curriculum development process.
- » Design a curriculum that integrates the skills and competencies necessary to pass the certification exam into the courses needed to meet college microcredential, certificate, and degree program requirements.
- » Regularly update the curriculum to align it with the content on certification exam blueprints and to reflect current industry standards and practices.
- » Ensure that the curriculum is modular and allows for stackable credentials. Incorporate hands-on, experiential learning opportunities such as internships, apprenticeships, and lab work.
- » Collaborate with state regulatory agencies (as applicable) to ensure alignment and compliance.

Accreditation and Approval⁹

- » Obtain necessary approvals from the college's governing board and relevant external agencies.
- » Work with accrediting bodies to ensure that the program meets all educational standards and regulations.

Faculty and Staff Training

- » Recruit faculty with relevant industry experience and teaching expertise, including those who may have earned the certification.
- » Provide professional development opportunities to ensure that faculty and other subject matter experts are current with industry practices and pedagogical methods and have opportunities to earn the certification.

⁸ Author's note: See also Planning for Outcomes and Evaluation section.

⁹ Author's note: See also Planning for Regulatory Oversight section.

Partnership Development

- » Establish partnerships with local businesses, industry associations, and certification bodies.
- » Develop articulation agreements with four-year institutions to ensure that credits transfer seamlessly.
- » Support or create CPL agreements with organizations such as the military and others, as appropriate, and engage the college human resources office in how to interpret CPL and other partnership agreements.

Marketing and Outreach

- » Look for innovative ways to support C+D pathways such as revising fee structures to include certification exam fees or approaching corporate partners to sponsor certification exams.
- » Develop a comprehensive marketing plan to promote the program to prospective students and employers.
- » Use a variety of channels, including social media, community events, job fairs, and partnerships with local high schools.

Planning for Outcomes and Evaluation

Ensuring the quality and effectiveness of C+D pathways requires a robust framework for quality assurance and continuous assessment which includes regularly monitoring, evaluating, and improving the program to meet academic standards, industry requirements, and student needs. Some key quality assurance and continuous assessment considerations are outlined below.

Clear Objectives and Outcomes

- » Define clear program objectives and learning outcomes that align with industry standards and job market needs.
- » Ensure that these objectives are measurable and communicated to all stakeholders.

Define clear program objectives and learning outcomes that align with industry standards and job market needs.

Assessment Tools and Metrics

- » Create a comprehensive set of assessment tools, including exams, practical evaluations, project work, student feedback surveys, and exit interviews.
- » Develop metrics to measure student performance, program effectiveness, and alignment with industry needs.¹⁰

10 Author's note: The project team developed a framework for capturing metrics of C+D pathways at community colleges, see [Appendix A](#).

Regular Curriculum Review and Update

- » Conduct periodic curriculum reviews and assess program effectiveness to ensure that offerings remain current with industry trends and technological advancements.
- » Involve faculty, industry experts, and alumni in the review process to gather diverse perspectives and insights.

Faculty and Staff Development

- » Provide ongoing training and support to faculty to ensure high-quality instruction and up-to-date industry knowledge.
- » Provide ongoing training and support to staff for specific C+D pathways programs.

Student Progress Tracking

- » Use data management systems to track student progress, retention rates, and graduation outcomes. Review third-party certification pass rates and student outcomes data.
- » Identify at-risk students early and provide targeted support and interventions to help them succeed.

Industry Feedback and Advisory Committees

- » Establish advisory committees with representatives from relevant industries to provide ongoing feedback and recommendations.
- » Use this feedback to adjust the program and ensure that it meets employer expectations and labor market demands.

Alumni and Employer Surveys

- » Conduct regular surveys of alumni and employers to gather feedback on the program's effectiveness in preparing students for the workforce. Surveys should include questions about the value of the certification that is included in the pathway. Should the certification continue to be included in the pathway, or should it be replaced with a different certification that is more valued by employers?
- » Analyze survey results to identify areas for improvement and success stories to build upon.

Planning for Student Success Support

Ensuring student success in C+D pathways involves creating a supportive, engaging, and effective learning environment. Colleges can help students achieve their academic and professional goals by implementing strategic measures focusing on academic support, career readiness, personal development, and continuous feedback. The following steps are examples of ways to ensure student success.

Colleges can help students achieve their academic and professional goals by implementing strategic measures focusing on academic support, career readiness, personal development, and continuous feedback.

Comprehensive Academic Advising

- » Implement early alert systems to identify and support at-risk students and improve retention.
- » Provide personalized academic advising to help students navigate their educational pathways, select appropriate courses, and set achievable goals.
- » Non-credit courses often serve as stepping stones to certifications and degrees, especially for adult learners seeking to upskill or change careers. Advisors work with students to identify career goals and determine which non-credit courses align with their industry or certification objectives while explaining how non-credit courses can fulfill prerequisites or provide complementary skills that feed into credit-bearing C+D pathways. Additionally, they provide clear pathways for transitioning from non-credit to credit-bearing programs, ensuring that students understand how their non-credit learning can translate into formal credentials.
- » CPL allows students to earn credit for skills and knowledge gained through work experience, military service, or non-academic training. Advisors help students identify eligible work, life, or military experiences or third-party certifications that can be assessed for credit through CPL. Additionally, they support compiling a CPL portfolio which may include documented work experience, certifications, or job training that demonstrates proficiency in specific subjects. Advisors help students understand how certifications may apply toward CPL credits or degree requirements, ensuring that they maximize their prior experiences. The American Council on Education has provided credit recommendations for a number of certifications, and some colleges have curated lists of certifications accepted for CPL.¹¹

Robust Career Services

- » Offer career counseling, resume workshops, and interview preparation to equip students with job search skills.
- » Facilitate internships, apprenticeships, and job placement programs in partnership with local businesses and industries.

¹¹ Author's note: For example, see [Tarrant County Community College District](#).

Flexible Learning Options

- » Offer flexible scheduling options, including evening, weekend, and online classes, to accommodate diverse student needs.
- » Provide hybrid learning opportunities to blend in-person and online education.

Skill Development Workshops

- » Conduct workshops and seminars on technical skills, including competencies assessed on the certification exam, and professional skills, such as communication, teamwork, and critical thinking.
- » Provide hands-on training sessions to reinforce classroom learning with practical experience.

Mentorship Programs

- » Establish mentorship programs that connect students with industry professionals, alumni, and faculty to provide guidance and support.
- » Encourage peer mentoring to foster a sense of community and shared learning among students.

Comprehensive Support Services

- » Offer tutoring, study groups, and academic support centers to assist students with their coursework as well as standardized test-taking skills.
- » Provide access to counseling services, financial aid advice, and personal development resources.

Continuous Feedback and Assessment

- » Implement regular feedback mechanisms like student surveys and focus groups to gather input on the program's effectiveness.
- » Use assessment data to make informed decisions and continuously improve the curriculum and support services.

Engagement and Community Building

- » Foster a supportive campus environment that encourages student engagement through clubs, organizations, and events.
- » Promote a culture of inclusivity and diversity to ensure that all students feel valued and supported. Developing targeted recruitment strategies to engage underrepresented groups, such as first-generation students, low-income individuals, and adult learners, is essential. Offering flexible learning pathways that

Offering flexible learning pathways that accommodate various schedules and life circumstances, such as evening classes, hybrid formats, and self-paced options, ensures accessibility for a broader range of students.

accommodate various schedules and life circumstances, such as evening classes, hybrid formats, and self-paced options, ensures accessibility for a broader range of students. Additionally, wraparound support services, including academic advising, mentorship, financial aid, and career counseling, create an inclusive learning environment that promotes student success. By continuously monitoring equity gaps and using data to refine strategies, institutions can ensure that all students have the resources they need to thrive.

Clear Pathways and Articulation Agreements

- » Develop clear C+D pathways that outline the steps from enrollment to certification and degree completion.
- » Establish articulation agreements with four-year institutions to facilitate seamless transfer for students pursuing further education.

Industry Partnerships

- » Build strong relationships with industry partners to ensure that the curriculum remains relevant and aligned with current job market needs.
- » Involve industry professionals in curriculum development and provide opportunities for students to interact with potential employers.
- » Collaborate with certification partners to assist students with certification preparation.

Student Feedback and Assessment

- » **Regular Surveys and Focus Groups:** Conduct periodic surveys and focus groups to collect student input on pathway effectiveness, curriculum relevance, and overall instruction and support services quality.
- » **Ongoing Course Evaluations:** Integrate feedback mechanisms such as course evaluations at the end of each term to gather insights on instructional quality, course design, and any barriers students may face in their progression through the pathways.
- » **Student Success Metrics:** Monitor student success data, such as completion rates, certification attainment, and job placement outcomes, alongside direct feedback to ensure that the pathways are meeting student needs and adapting to any emerging challenges.

Long-Term Tracking and Alumni Engagement

- » **Alumni Surveys and Interviews:** Conduct annual or biennial surveys and structured interviews with program graduates to gather feedback on their career outcomes, skill utilization, and the program's long-term impact on their professional development.
- » **Dedicated Alumni Network:** Establish a formal alumni network or online platform where graduates can share career milestones, provide program feedback, and engage in ongoing professional development, offering continuous insight into the program's real-world effectiveness. Engage alumni as adjuncts.

- » **Career Tracking and Data Analysis:** Collaborate with career services and industry partners to track alumni job placement, career progression, and salary data over time. Use this data to assess the program's alignment with industry needs and identify areas for curriculum or support service enhancements.

Planning for Collaboration with Industry Certification Bodies

- » **Website Review:** Review the certification body website to determine what information is available. Does the certification body offer academic partnerships? Is the exam blueprint available on the website? Does the certification body provide any guidance for successful test taking such as tips on what to expect when going to a testing center or taking an online proctored exam?
- » **Academic Partnerships:** Determine if the certification body has an existing academic partnership program. If there is academic partnership information on the website, reach out to the point of contact to see if the academic partnership program aligns with the college's C+D pathway's needs. Identify the benefits, costs, and resources of participating in the academic partnership program.

Identify the benefits, costs, and resources of participating in the academic partnership program.

- » **Initial Contact:** Reach out to certification bodies with a clear proposal and the benefits of collaboration.
- » **Regular Communication:** Maintain ongoing communication to inform certification bodies of program developments and outcomes. Use this opportunity to inform certification bodies about additional resources or information that would be helpful.
- » **Joint Initiatives:** Explore opportunities to engage in joint initiatives such as co-branded programs, workshops, and events to strengthen the partnership.
- » **Feedback Loops:** Establish feedback mechanisms to ensure that certification bodies can provide input and stay engaged in the continuous improvement process.

Planning for Regulatory Oversight

Since the Higher Learning Commission (HLC) was a partner in this grant, HLC-specific details are included below. Community colleges working with other accrediting agencies should align their efforts accordingly.

Accreditation Requirements

- » **Compliance with HLC Standards:** Programs must adhere to HLC's Criteria for Accreditation, specifically focusing on the core components of institutional mission, student learning, and teaching effectiveness. All instructional materials, faculty qualifications, and student support systems must meet these requirements.
- » **Learning Resources:** Ensure that facilities, instructional resources, and technology used for both credit and non-credit pathways align with HLC expectations for supporting student success.

Clear Standards for Curriculum, Instruction, and Assessment

- » **Curriculum Design:** Align curriculum development with HLC Criterion 3 (Teaching and Learning: Quality, Resources, and Support). Ensure that learning outcomes for both certifications and degrees meet academic and industry standards.
- » **Instruction Quality:** Faculty should meet HLC's minimum faculty qualifications and demonstrate subject matter expertise, particularly in the context of new and integrated certification programs.
- » **Assessment Practices:** Implement ongoing, data-driven assessments aligned with HLC Criterion 4 (Teaching and Learning: Evaluation and Improvement), ensuring that student outcomes are measurable and achievable and support continuous program improvement.

Accreditation Reviews and Audits

- » **Self-Study Reports:** Conduct regular self-studies and evaluations to prepare for comprehensive HLC evaluations, incorporating feedback from faculty, staff, and students. Maintain an organized repository of documentation to ease the audit process.
- » **Compliance Audits:** Engage all stakeholders, including administration, faculty, and student support services, in internal reviews prior to HLC site visits or mid-cycle reviews. These audits should ensure alignment with HLC core components focused on student learning outcomes, program effectiveness, and institutional improvements.

Comprehensive Records of Program Development and Outcomes

- » **Data Collection and Management:** Implement systems to track student progress, completion rates, certification outcomes, and employment metrics in compliance with HLC Criterion 5 (Institutional Effectiveness, Resources, and Planning). Accurate record-keeping is crucial for both demonstrating program impact and supporting long-term compliance.

- » **Continuous Improvement Documentation:** Ensure regular reporting and analysis of student performance data and curriculum effectiveness, aligning with HLC's requirement for ongoing institutional improvement. This will aid in compiling data-driven accreditation reports.

Accreditation Feedback and Continuous Improvement Efforts

- » Implement a continuous improvement cycle that includes planning, implementation, assessment, and revision phases.
- » Use data and feedback from students, faculty, and industry partners to make informed decisions about program enhancements and strategic changes.
- » Use insights from accreditation reviews to identify areas for improvement. Develop immediate action plans to address deficiencies and enhance program strengths.
- » Implement a continuous cycle of program review and improvement, emphasizing compliance with HLC Criterion 4 (Evaluation and Improvement). Use external feedback as a guide to ensure that program offerings remain relevant and responsive to student needs and labor market demands.

Planning for Sustainability

After all of the work put into developing C+D pathways, investing in long-term success supports students, the college, and the community. Some ideas to consider for sustainability include:

- » **Funding:** Securing ongoing funding through grants, partnerships, and institutional support.
- » **Partnerships:** Building and maintaining strong partnerships with industry and community stakeholders.
- » **Curriculum Updates:** Continuously updating the curriculum to reflect current industry standards and trends as well as changing content in certification exams. Certification bodies update their certification exams regularly, ranging from yearly to every five years, depending on how quickly knowledge changes in the industry.
- » **Institutionalization:** Embedding successful practices into the college's standard operating procedures.
 - **Formal Policy Adoption:** Develop and implement policies that formally recognize and support C+D pathways, including non-credit-to-credit articulation, prior learning assessment, and stackable credentials.
 - **Curriculum Integration:** Ensure that certification exam competencies are consistently embedded within degree programs across multiple departments, standardizing curriculum design to reflect pathway opportunities. Creating courses as special topics allows flexibility in course offerings.

- **Dedicated Staffing and Resources:** Allocate permanent staff and resources (e.g., advisors, faculty, technology, and infrastructure) to support the ongoing delivery, advising, and administration of C+D pathways.
- **Ongoing Professional Development:** Institutionalize training and development for faculty and staff to ensure continuous engagement with pathway design, workforce trends, and evolving student needs. Explore options to ensure faculty are familiar with the certification exams, which may include professional development support to review the certification exam blueprint or to become familiar with the student experience by taking the certification exam.
- **Data-driven Decision-making:** Embed regular data collection and analysis processes to monitor the effectiveness of pathways, using metrics such as student enrollment, completion rates, and employment outcomes to inform continuous improvement.
- **Cross-departmental Collaboration:** Make interdepartmental cooperation a standard practice to ensure seamless alignment between non-credit, credit, and workforce programs while fostering ongoing relationships with industry partners.

Implementation Steps

Implementing C+D pathways involves translating the strategic plan and curriculum design into an operational program that effectively serves students and meets industry needs. This process requires careful coordination, resource allocation, and ongoing assessment to ensure that each pathway is functional and beneficial. Key implementation steps include establishing administrative procedures, securing necessary resources, and engaging stakeholders to create a sustainable and impactful educational offering.



Administrative Setup

- ☐ Establish a dedicated program management team responsible for overseeing the implementation process.
- ☐ Develop clear policies and procedures for program administration, including enrollment, advising, and assessment.

Resource Allocation

- ☐ Secure funding and allocate resources for program infrastructure, including classroom space, on-campus certification testing centers, technology, and instructional materials.
- ☐ Ensure adequate staffing, including hiring additional faculty and support staff as needed.

Curriculum Integration

- ❑ Finalize and integrate the curriculum, ensuring that the skills and competencies assessed on the certification exam are seamlessly embedded within the degree program.
- ❑ Design pathways accommodating diverse learning needs, duration/length, and schedules.
- ❑ Develop detailed course schedules and timelines to facilitate student progression through the pathway.

Technology and Infrastructure

- ❑ Ensure that facilities and equipment, including labs and technical resources for hands-on training, meet the program's needs.
- ❑ Implement appropriate technological tools and platforms to support online learning, student tracking, and administrative functions. Efficient student tracking ensures that students stay on course, fulfill program requirements, and achieve their academic and career goals. Proper tracking mechanisms help monitor student progress, identify challenges early on, and provide timely interventions, all while ensuring smooth transitions between certification and degree milestones. The following options can be used to track student progress.

Efficient student tracking ensures that students stay on course, fulfill program requirements, and achieve their academic and career goals.

- ❑ Learning management systems provide students with personalized dashboards that display course schedules, assignments, grades, and certification milestones.
- ❑ Early warning systems analyze various indicators like attendance, low grades, late assignment submissions, and lack of discussion participation. When a student falls below a certain threshold, the system notifies the student's academic advisor and the instructor.
- ❑ Academic advising and degree audit tools help students instantly see which courses they have completed, which certifications they have earned, and what requirements are still outstanding. The system can suggest potential course sequences to ensure the fastest path to completion.
- ❑ Students use mobile and online apps to check their grades, receive notifications for upcoming exams or certifications, and schedule advising appointments. The app also enables students to track their financial aid status and tuition payments, ensuring that they stay informed on all aspects of their educational journey.

Faculty Development

- ❑ Provide ongoing training and professional development for faculty to ensure that they can effectively deliver the integrated curriculum. This may include becoming familiar with the certification or taking the certification exam and earning the certification.

- ☐ Offer incentives for faculty to engage in the initiative, such as recognition and career-advancing opportunities.
- ☐ Foster a collaborative environment where faculty can share best practices and resources and support each other.

Student Recruitment and Enrollment

- ☐ Launch targeted marketing campaigns to attract prospective students, emphasizing the benefits of the integrated pathway.
- ☐ Streamline the enrollment process to make it easy for students to enter the program and understand their educational trajectory.

Student Support Services

- ☐ Enhance student support services, including academic advising, career counseling, and tutoring, to help students navigate the pathway and achieve success. Test preparation and test anxiety support programs may help students who are taking certification exams.
- ☐ Implement mentorship programs and peer support networks to foster a sense of community and belonging.

Partnerships and Collaboration

- ☐ Strengthen partnerships with local businesses and industry associations to provide students with practical training and employment opportunities.
- ☐ Strengthen relationships with certification bodies and make use of resources they provide, such as instructional tools and test preparation materials, career pathway information and the certification value proposition, discounts on exam vouchers, or other types of direct support.
- ☐ Collaborate with four-year institutions to facilitate seamless transfer pathways for students pursuing further education.

Monitoring and Evaluation

- ☐ Establish a system for ongoing monitoring and evaluation of the program's effectiveness, including student performance, graduation rates, certification exam pass rates, employment outcomes.
- ☐ Use data-driven insights to make continuous improvements and address any emerging challenges.
- ☐ Ensure that programs are sustainable through ongoing evaluation and improvement.

Common Challenges and Mitigation Strategies

The colleges that took part in this project identified some challenges as well as mitigation strategies to address the challenges in a few areas, described below.

Curriculum Alignment

Challenge: Ensuring that the curriculum meets both industry standards and academic requirements while keeping pace with rapidly evolving workforce demands.

Mitigation Strategies

- » **Regular Industry Engagement:** Establish advisory boards or focus groups with regional employers to review and provide feedback on curriculum content regularly.
- » **Continuous Curriculum Updates:** Incorporate flexible curriculum design that allows for rapid updates to reflect new or updated industry certifications, technologies, and methodologies. This could involve annual reviews with faculty and industry leaders.
- » **Real-world Projects:** Incorporate industry projects or simulations that allow students to work on real-world problems, ensuring that skills are immediately transferable to the job market. Industry projects or simulations can also be used to reinforce both the academic content and to demonstrate that students can apply the skills and competencies assessed on the certification exam.

Faculty Engagement

Challenge: Securing consistent faculty engagement, particularly when introducing new credential pathways that may differ from traditional academic models.

Mitigation Strategies

- » **Professional Development:** Offer ongoing professional development sessions focused on the benefits of C+D Pathways, workforce trends, and effective teaching methodologies for stackable credentials.
- » **Incentives and Recognition:** Provide incentives such as stipends, course release/reassigned time, or recognition for faculty participating in developing pathway programs. Stipends can be used to support faculty in earning the certifications and to cover the cost of taking the exam. Recognizing faculty efforts in college-wide communications can also build enthusiasm.
- » **Collaborative Curriculum Development:** Engage faculty in co-creating a curriculum with industry. Utilizing resources that are provided by the certification bodies to help develop the curriculum ensures relevance while fostering buy-in.

Student Test Anxiety

Challenge: Ensuring that students have the skills necessary to take the standardized certification exams. Many students have not taken standardized tests for a long time or ever, and there are skills needed to succeed on standardized exams.

Mitigation Strategies

- » Use practice exams from the certification body.
- » Incorporate strategies to assist in taking standardized exams in the C+D pathway.
- » Offer special workshops on skills for taking standardized exams.

Testing Centers

Challenge: Addressing the reality that students may not have transportation to a testing center or may not be able to attend during hours the center is open.

Mitigation Strategy

- » Partner with testing vendors such as Pearson VUE to have a testing center on campus while also addressing cost and infrastructure requirements associated with hosting on-campus testing centers.

Accreditation Navigation

Challenge: Navigating the complexities of programmatic accreditation and state-level approvals, especially when incorporating new credentials and certification programs.

Mitigation Strategies

- » **Thorough Documentation:** Ensure meticulous documentation of learning outcomes, assessments, and program design to provide clear evidence that pathways meet accreditation standards.
- » **Early and Ongoing Engagement:** Engage accreditation bodies early in the pathway design process to ensure compliance and reduce the risk of delays in program approval. Maintain open communication and seek feedback to ensure alignment.
- » **Continuous Improvement:** Implement a feedback loop in which program performance metrics (e.g., student success rates, employment outcomes) are regularly analyzed and used to adjust the program, demonstrating a commitment to continuous improvement for accreditation bodies.

Balancing Programs

Challenge: Balancing the integration of non-credit and credit programs while accommodating the diverse needs of learners.

Mitigation Strategies

- » **Flexible Scheduling:** Develop evening, weekend, and online courses to accommodate the schedules of working students and those with family responsibilities.
- » **Bridge Programs:** Create bridge programs that allow non-credit students to transition seamlessly into credit-bearing degree pathways. Offering CPL assessment ensures that students can transfer work and life experience into credits, shortening their time to degree completion.
- » **Modular Learning:** Implement modular course designs that allow students to complete smaller, stackable credentials or certifications as they work toward an academic degree. This enables students to pause and re-enter the system without losing progress.

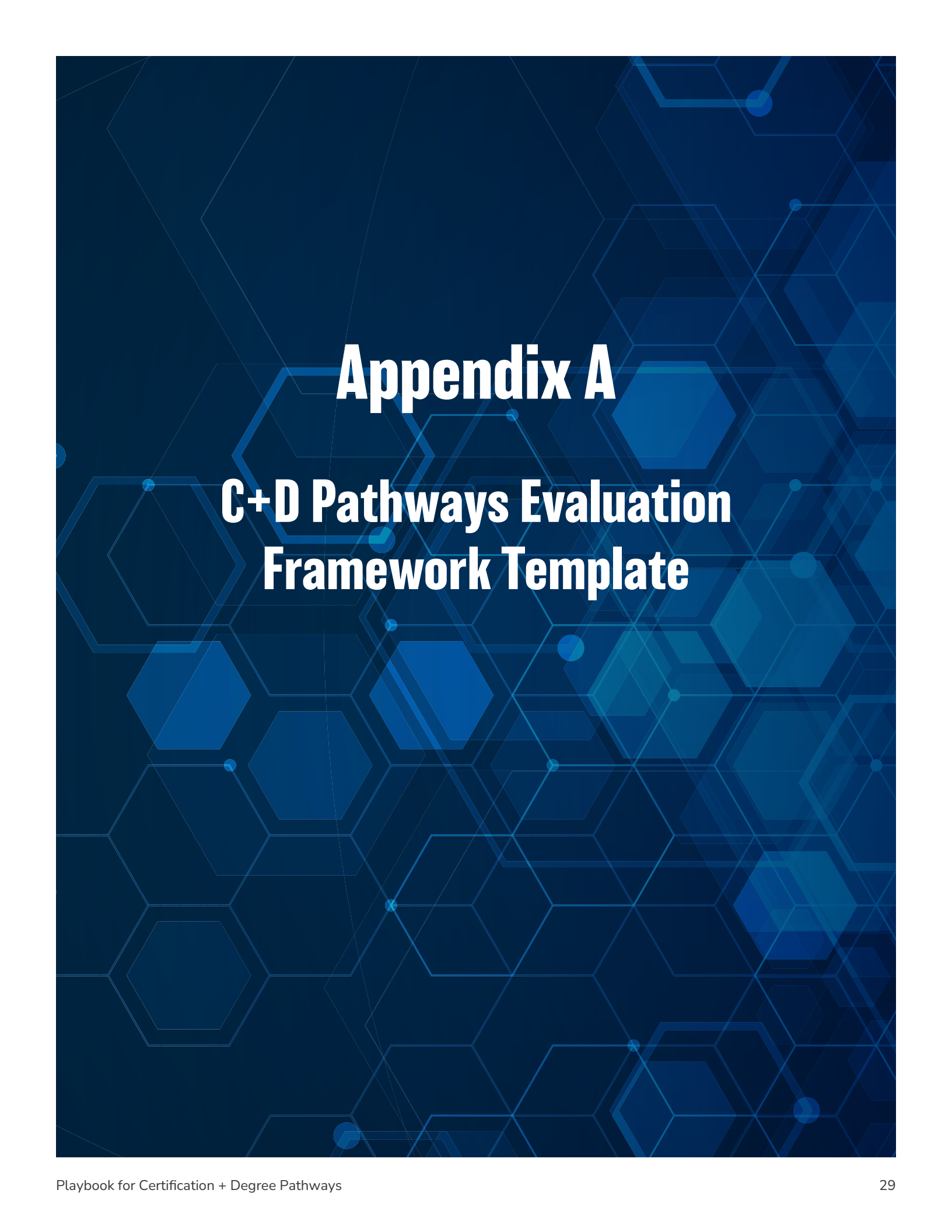
Conclusion

The development and implementation of C+D pathways represent a transformative opportunity for community colleges to better serve their students and meet the demands of a rapidly evolving workforce. By integrating industry-recognized certifications with comprehensive degree programs, community colleges can offer a dynamic, flexible, and career-focused educational experience. These pathways provide students with both the immediate skills required for today's job market and the deeper knowledge base necessary for long-term career growth.

By integrating industry-recognized certifications with comprehensive degree programs, community colleges can offer a dynamic, flexible, and career-focused educational experience.

As this playbook has outlined, building successful C+D pathways requires strategic planning, collaboration with industry partners, and a commitment to continuous assessment and improvement. From curriculum design to student support services, each step must be carefully aligned to ensure that students not only complete their programs but also gain the skills and credentials needed to thrive in their careers. However, the success of these pathways hinges on more than just the program's structure. Strong leadership, effective use of resources, and fostering a culture of innovation are critical to driving the success of C+D pathways.

In closing, the power of C+D pathways lies in their ability to bridge the gap between education and employment, making community colleges pivotal players in workforce development. As you move forward with the insights and strategies presented in this playbook, remember that the ultimate goal is to empower students to achieve their academic and professional potential. By staying focused on this mission, you can ensure that your institution remains a leader in education and community impact, helping students and local economies to thrive.



Appendix A

C+D Pathways Evaluation Framework Template

Evaluation Framework for Certification + Degree Pathways

Overall Student Demographics for the College

term #

Number of students enrolled in college:
IPEDS fall enrollement

Race/Ethnicity: Percentage (%) / Headcount (#)

% #

American Indian or Alaska Native

Asian

Black or African American

Hispanic or Latino

Native Hawaiian or Pacific Islander

Middle Eastern / North African (MENA)

White

Student on Visa

Undeclared

Gender: Percentage (%) / Headcount (#)

% #

Male

Female

Other / Undeclared

Age: Percentage (%) / Headcount (#)*

% #

Under 18

18–24

25–39

40 or above

*Or other categories based on the college's data collection

Pell Eligibility: Percentage (%) / Headcount (#)

% #

Students who are Pell eligible

Certification + Degree Programs

Name of Program

% #

Enrollment

Dual-enrolled students

Academic Load (by term)

term #

Full-time headcount

Part-time headcount

Modality (by term)

term #

Online headcount

In-person headcount

Hybrid headcount

Student Success Measures (by term)

term #

Retention rate (use IPEDS definition)

Completion rate (use IPEDS definition)

Time to completion (mean months)

Time to completion (median months)

Considerations: How to count students who started in dual enrollment, gap years, changed programs, and other retention data collection challenges, autoawarding degrees/certificates, summers off or not, developmental ed coursework, etc.

Continued on next page



Workforce Alignment

Job Placement: Did employers hire more students from the C+D programs than from traditional programs (or from the same program before the switch to C+D)?

Time to Employment: Did students in the C+D program find jobs faster than those from traditional programs (or from the same program before the switch to C+D)?

Starting Salary: Did students in the C+D program get higher paying jobs than those from traditional programs (or from the same program before the switch to C+D)?

Employer Distribution: Did the employers hiring graduates of the C+D program change, compared to the same program before C+D?

Notes