Creating an Asynchronous, Co-curricular Microcredential for all Students

A Case Study

workcred
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The University of Texas System

Workcred, Inc.
1899 L Street, NW, 11th floor
Washington, DC 20036
www.workcred.org

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The University of Texas System
210 West 7th Street
Austin, TX 78701-2982
www.utsystem.edu

With 14 institutions that enroll over 256,000 students overall, The University of Texas System is the largest university system in Texas and one of the largest public university systems in the United States. UT institutions produced over 66,000 graduates last year and awarded more than one-third of the undergraduate degrees in Texas. They also educate more than one-half of the state's health care professionals and award 63 percent of the state's medical degrees annually. The combined efforts of UT-owned and affiliated hospitals and clinics resulted in nearly 10.8 million outpatient visits and more than 2.1 million hospital days in 2023. UT's $4.3 billion research enterprise is one of the nation's most innovative, ranking number one in Texas and number two in the U.S. for both total and federal research expenditures. With an operating budget of $32 billion for fiscal year 2025, UT institutions collectively employ more than 160,000 faculty, health care professionals, support staff, and students.

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Microcredentials in the University of Texas System

The state of Texas continues to experience strong job growth, which increases the need for employers to be able to hire workers with necessary skills upon graduation.[1] To address this challenge, The University of Texas System (UT System) launched the **Texas Credentials for the Future Initiative** in 2021 to create more opportunities for students, alumni, and incumbent workers to earn short-term credentials (i.e., professional certificates and microcredentials). Through partnerships with Coursera and Google, as well as initial grant funding from Strada Education Foundation, the UT System scaled microcredentials across their institutions to expand career opportunities, help students understand how skills learned in an academic course or program are connected to skills required by employers, and to improve post-graduate wages.[2]

Faculty members were given flexibility to implement strategies that were best suited for their academic disciplines, courses, and students. They could adopt existing professional certificates or develop their own microcredential. Faculty could also determine if a microcredential should be embedded in a course, offered as a co-curricular activity, or as a combination of the two.

This case study focuses on an asynchronous, co-curricular experience that allows students at The University of Texas at Arlington (UTA) to gain additional technical skills and strengthen 21st-century power skills (e.g., communication, critical thinking, teamwork) that improve graduate's earnings. This document is part of a series of four case studies that highlight how faculty in different academic disciplines at three UT System institutions utilized microcredentials in their undergraduate courses.

> **"I am honored to collaborate with faculty and staff within our System to support collective efforts to improve the career readiness of our learners by providing access to industry credentials that supplement degrees to help our learners be competitive in the evolving world of work."**
>
> **– Kelvin Bentley, Ph.D., program manager, Texas Credentials for the Future, The University of Texas System**

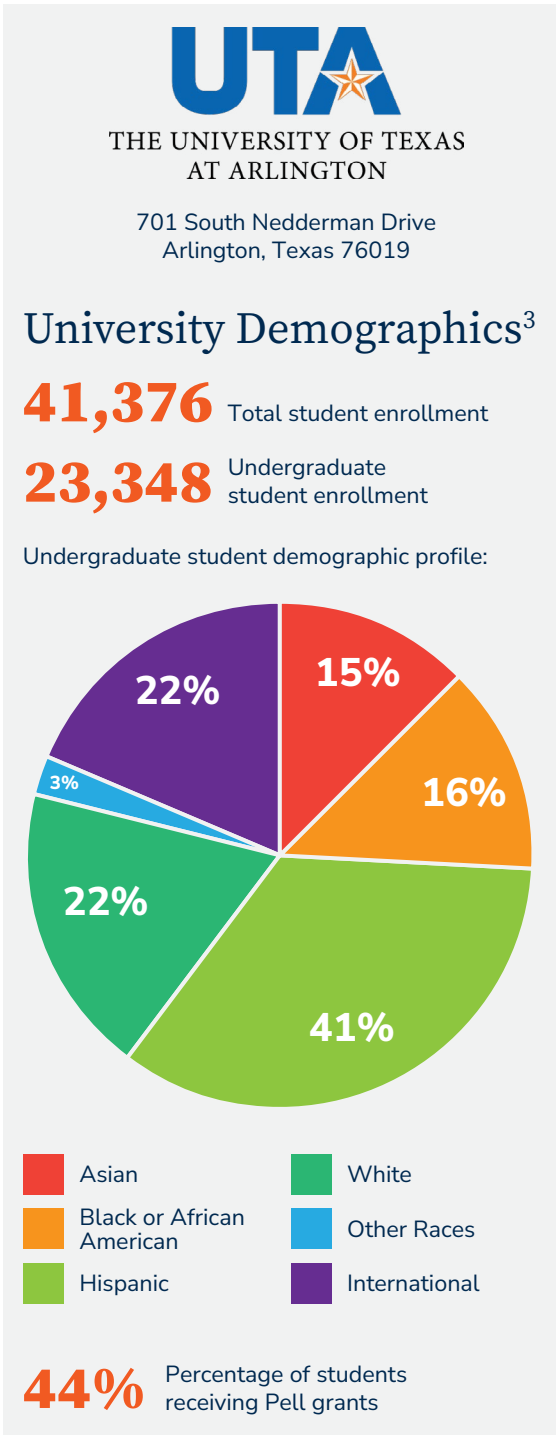
1 "Over 26,000 Jobs Added as Texas Labor Market Continues Growth Streak," Texas Workforce Commission, April 18, 2025, **https://www.twc.texas.gov/news/over-26000-jobs-added-texas-labor-market-continues-growth-streak**.

2 "Texas Credentials for the Future," The University of Texas System, accessed February 12, 2025, **https://www.utsystem.edu/sites/texas-microcredentials**.

Determining the Focus and Rationale for Microcredentials at UTA

Faculty at UTA wanted to improve the earnings of students enrolled in academic majors whose graduates had lower earnings one, five, and ten years after graduation. Using data from seekUT, a free tool that synthesizes data from different sources, including the Texas Higher Education Coordinating Board, the U.S. Census Bureau, the Texas Workforce Commission, the U.S. Department of Labor, the Bureau of Labor Statistics, and the National Student Clearinghouse®, faculty could see post-graduate outcomes data by campus and academic major.[4] After initial analysis of the data, faculty focused on developing an intervention to improve outcomes for some humanities and social science majors. However, further data analysis revealed that some science, technology,

Figure 1: UTA Demographics



3 "SmartBook," The University of Texas System Office of Institutional Research, May 2024, https://www.utsystem.edu/sites/default/files/offices/institutional-research-analysis/Smartbook-2024-Print-Version-for-Website.pdf.

4 "seekUTA," The University of Texas System, accessed March 15, 2025, https://seekut.utsystem.edu/seekUTArlington.

engineering, and math (STEM) majors also had lower earnings outcomes, so the focus broadened to students from all academic majors. Additionally, the intervention would incorporate both technical skills and 21st-century power skills like communication, critical thinking, and teamwork.

Different types of interventions such as internships, LinkedIn Learning, and Google Professional Certificates were initially explored by faculty. Through additional research, focus groups, and conversations with students, the greatest interest was for the technical skills offered through Google Professional Certificates, which made clear linkages to career paths and career opportunities throughout the content. As a result, UTA created a pilot program to offer all students the opportunity to earn Google Professional Certificates through a co-curricular microcredential to gain technical skills that might not have been part of their academic course of study and enhance 21st-century power skills.

Creating and Implementing the Power Up + Tech Up Microcredential Program

UTA offers microcredentials as faculty-developed academic microcredentials, industry-developed microcredentials that are embedded in academic course curriculum, and industry-developed microcredentials that are offered as co-curricular experiences. Each type of microcredential needs administration, faculty, and staff champions within the university.

"Through Power Up + Tech Up, graduates can gain knowledge, critical thinking, and technical skills to be broadly educated and skilled to launch a career."

– Robin Macaluso, provost faculty fellow, Power Up + Tech UP lead, and associate professor of chemistry and biochemistry, UTA

The co-curricular microcredential that was developed at UTA was called Power Up + Tech Up, which integrated both technical skills and 21st-century power skills.[5] Five Google Professional Certificates are available to students to comprise the technical skills—Google Data Analytics, Google UX Design, Google Digital Marketing & E-commerce, Google IT Support, and Google Project Management—while the 21st-century power skills were based on the National Association of Colleges and Employers (NACE) career readiness competencies.[6]

The faculty coach reviewed the course content for the five Google Professional Certificates to ensure that the courses' content matched the goals of the Power Up + Tech Up program. All of the Google Professional Certificates addressed in-demand labor market skills and could qualify students for occupations that are growing faster than the national average for growth in all occupations (see Figure 2).[7] None of the certificate programs had educational or experience prerequisites, which makes the certificates accessible to all students of any major.

5 "Power Up + Tech Up," The University of Texas at Arlington, accessed April 23, 2025, **https://www.uta.edu/administration/provost/the-power-tech-up**.

6 "What is Career Readiness?," National Association of Colleges and Employers, accessed March 26, 2025, **https://www.naceweb.org/career-readiness/competencies/career-readiness-defined**.

7 "Occupational Outlook Handbook," U.S. Bureau of Labor Statistics, U.S. Department of Labor, accessed March 24, 2025, **https://www.bls.gov/ooh**.

Since Power Up + Tech Up is a co-curricular program, students can complete the certificate course modules for one Google Professional Certificate of their choosing at their own pace. This allows students who have full-academic course loads and are working either part- or full-time to complete the modules when they have time in their schedules. Students do not have to complete the certificate in a set time frame, although they are encouraged to try to complete it in one semester. Because of the partnership between the UT System, Google, and Coursera, there is no cost to students to enroll in and complete the Google Professional Certificates.[8] And although the target audience is undergraduate students in any academic major, some graduate students also completed the Power Up + Tech Up program.

To begin the Power Up + Tech Up microcredential, students must first complete a four-hour online, self-paced course about the NACE career readiness competencies, which include career and self-development, communication, critical thinking, equity and inclusion, leadership, professionalism, teamwork, and technology. This online course integrates videos, readings, and interactive components to provide students information about the career readiness competencies and standard terms and definitions that guide communication between the students and the faculty coach. Completing the career readiness course can give students confidence in their ability to work independently to complete an asynchronous course. After completing the four-hour course, students can register to take one of the five Google Professional Certificates offered as part of the Power Up + Tech Up program. Each Google Professional Certificate includes five to seven courses that are divided into modules. Each course includes learning outcomes, a list of skills that learners will gain, the number and types of assessments, the number of modules within each course, and the estimated time to complete each module. Each module incorporates readings, videos, quizzes, and discussion prompts. Some certificates also include a capstone project.

Figure 2: Google Professional Certificates and Relevant Occupations[9]

Google Professional Certificate	Prepares Learners for These Occupations
Data Analytics	Data Analyst; Junior Data Analyst; Associate Data Analyst
UX Design	User Experience Designer; User Interface Designer; Interaction Designer
Digital Marketing & E-Commerce	Marketing Coordinator; E-commerce Associate; Paid Search Specialist
IT Support	IT Specialist; Tech Support Specialist; IT Support Specialist
Project Management	Project Manager; Project Coordinator; Project Assistant

8 "UT System and Google Announce Google Career Certificates for up to 10,000 Texas University Students," The University of Texas System, December 9, 2022, **https://www.utsystem.edu/news/2022/12/09/ut-system-and-google-announce-google-career-certificates-10000-texas-university-students**.

9 "Google Data Analytics Professional Certificate," Coursera, accessed April 16, 2025, **https://www.coursera.org/professional-certificates/google-data-analytics**; "Google UX Design Professional Certificate," Coursera, accessed April 16, 2025, **https://www.coursera.org/professional-certificates/google-ux-design**; "Google Digital Marketing & E-commerce Professional Certificate," Coursera, accessed April 16, 2025, **https://www.coursera.org/professional-certificates/google-digital-marketing-ecommerce**; "Google IT Support Professional Certificate," Coursera, accessed April 16, 2025, **https://www.coursera.org/professional-certificates/google-it-support**; and "Google Project Management Professional Certificate," Coursera, accessed April 16, 2025, **https://www.coursera.org/professional-certificates/google-project-management**.

Building the Case for Microcredentials

Developing the Team and Building Support for Power Up + Tech Up

To develop support for the Power Up + Tech Up program, UTA involved faculty and staff from an array of departments. This holistic approach was led by the senior vice provost who had the vision for microcredentials and what governance was needed to support them on campus. Dr. Robin Macaluso, provost faculty fellow, Power Up + Tech Up lead, and associate professor of chemistry and biochemistry, leads the Power Up + Tech Up program along with a team comprised of the senior vice provost, career development center director, transition services director, the office of enrollment management director, and the student success director (see Figure 3). Each member of the leadership team focuses on specific activities to ensure the success of the Power Up + Tech Up program.

Figure 3: Power Up + Tech Up Leadership Team and Responsibilities

Team Member	Responsibilities
Faculty Fellow	Market the program to all students, inform faculty about the program, recruit students to participate, and coach students to support their progress through the certificate program
Senior Vice Provost	Provide leadership
Career Development Center Director	Provide information about career pathways
Transition Services Director	Recruit and market the program to transfer students
Office of Enrollment Management Director	Recruit and market the program to incoming students
Student Success Director	Advertise the program to academic counselors and provide guidance around coaching

By creating a leadership team in which individual members have designated responsibilities and represent multiple departments across the institution, the Power Up + Tech Up program has the support it needs for success.

Measuring Success and Effectiveness

Data about how learners progress though the Google Professional Certificates is collected through a dashboard on the UTA Coursera Career Academy portal that is accessible by faculty. The data dashboard provides information for each certificate and allows the faculty fellow to monitor progress for each Power Up + Tech Up

student. There is also data about the number of students enrolled, the number of students who completed Power Up + Tech Up, the number of courses in each certificate module that have been completed, the number of students who have only one course left to complete the certificate, and the program completion rate.

This data can also be matched to other data sources to gather more information about the students, including if they are a first-generation learner or transfer student, and what is their race/ethnicity and academic program. This quantitative data is supplemented by qualitative data gathered through conversations with students and bi-weekly check-in surveys that ask students to provide information about what module they are working on. The overarching goal is to track these students after graduation to understand their career paths and whether the Power Up + Tech Up microcredential helped students obtain a job with better earnings.

> **"Power Up + Tech Up was designed to meet the needs of UTA's students who are motivated to begin successful careers using their college degrees and the skills that they gain at UTA."**
>
> **– Robin Macaluso, provost faculty fellow, Power Up + Tech UP lead, and associate professor of chemistry and biochemistry, UTA**

Sustainability

UTA has developed a university-wide Microcredential Governance Team to support the growth and sustainability of all microcredential efforts across the campus. One option that is being explored is to offer a hybrid model where faculty would embed one or two modules of a particular Google Professional Certificate into an academic course to provide exposure to the certificate. Then, if a student was interested in earning the certificate, they could transition to the Power Up + Tech Up program, where they would receive coaching and support to complete it as a co-curricular microcredential. This approach would expose more students to additional technical skills, demonstrate how Google Professional Certificates can complement academic courses, introduce more students to Google Professional certificates, and provide a pipeline of students into the Power Up + Tech program. However, offering the Power Up + Tech program as a hybrid and increasing the number of co-curricular offering students would require additional designated faculty with responsibility for scaling and sustaining this initiative.

Additional research would also inform the future strategies for program sustainability. The Power Up + Tech Up program is currently offered at no cost to students, which is beneficial to students because it is more easily accessible. However, one of the challenges of a free program is that many more students enroll in the program than complete it. It would be useful to explore the impact of making the program low-cost instead of no-cost to provide a more complete understanding of how students value the Power Up + Tech Up program in terms of required time to participate, cost, and whether students will pay to participate, and if so, how much and for how long. Greater analysis of these points would provide useful information to inform further plans for program sustainability.

Challenges, Lessons Learned, and Conclusion

Recruiting Students to a New Program

For any program to be successful, students must know about it and participate in it. Dr. Macaluso and her colleagues on the Power Up + Tech Up leadership team spent a lot of time creating messages that resonated with students and using different marketing strategies to reach them. Since there is no grade that can be used to motivate students to succeed in a co-curricular experience, it was critical to use a message that captures student interest. UTA undergraduate students seek a degree for: (1) an immediate return on investment, (2) a long-term career, and (3) the combination of academics and workforce preparation.[10] So, the message they developed focused on the skills that students can acquire by combining their degree with a Google Professional Certificate and how those skills are valued in the labor market though additional career opportunities and earnings.

In addition, the leadership team created a Power Up + Tech Up website and placed ads in the student newspaper, *The Shorthorn*. Representatives of Power Up + Tech Up also attended student events where they could distribute marketing materials and interact directly with students. The other effective strategy was students talking to teach other and microcredential earners promoting the program.

Increase Engagement in an Asynchronous, Co-curricular Microcredential

Engineering students wanted to learn more about project management and social work majors expressed interest in learning programming languages. Since students enrolled in Power Up + Tech Up came from different academic majors and had different levels of academic experience, coaching was added to more effectively support students in this asynchronous environment. One of the areas where students were struggling was with time management, since many students were trying to balance work, academics, and family. Dr. Macaluso developed bi-weekly check-ins to help students maintain a pace to complete a Google Professional Certificate in one semester. Dr. Macaluso created five-minute videos that were sent to students every two weeks on Fridays

10 Robin Macaluso and Amber Smallwood, "Integrating Microcredentials into Undergraduate Experiences," (Presentation, Convergence: Credential Innovation in Higher Education, Washington DC, November 2, 2023).

to provide information about the content students should be working on that week and what to expect in the coming weeks. Students did not need to follow the same pace that was outlined in the videos, but use them as additional guidance and encouragement to continue to progress through the modules in the microcredential.

On the weeks that there was not a video, students received a short survey to gather information about what module they were working on and to reinforce the importance of integrating technical skills and 21st-century power skills. In the survey, students are asked to respond to two questions. One question focused on technical content related to the Google Professional Certificate. Since the students can work at their own pace, the question was broad enough to be relevant to all students. The second question focused on 21st-century power skills. Questions might include how is the Google Professional Certificate course content going to help you with leadership? Or, how do you associate what you are learning in the certificate program with one of the NACE competencies?

Support for Faculty

Developing new microcredential programs requires faculty commitment and time to research what type of microcredential will address the issue of low graduate rates for specific academic majors and understand what type of microcredential will be most valued by students. Faculty can be supported in this endeavor by providing them with training that addresses microcredential development, governance, data sources that can be used to justify the need for the microcredential, and best practices. Faculty could also be given a course release to allow faculty additional time to develop a microcredential or a stipend to help cover costs associated with the microcredential development that is not already covered by the institution.

Start Small and Plan to Scale

Power Up + Tech Up was launched in the spring of 2022 with about 30 students. The program grew quickly to nearly 200 students after two semesters and a summer term. By beginning small, it provides opportunities to get feedback from the participants and to make necessary adjustments to the program.

The program can also grow in the future by offering additional professional certificates for students to choose from. Data should be analyzed to determine what new professional certificates could be offered and if any of the current offerings should be retired. It is critical to retire certificates that no longer have labor-market value. Adding new certificates will require that additional staff be hired to serve as coaches.

Communicate the Value Proposition to Students and Faculty

Articulating a clear value proposition is critical to the success of a program, especially one that is co-curricular. Students must understand how it enhances the work they are doing in their major as well as how it can enhance career goals. One of the focuses of the Power Up + Tech Up program is to highlight the importance of students having both technical and 21st-century power skills. Instead of treating these skills separately, this program highlights how the skills are integrated and that students who possess both types of skills will have more career opportunities.

In addition, the Power Up + Tech Up leadership team pitched the program broadly to departmental faculty, academic counselors, and institution leaders as a way to build internal support. And, if multiple people are working on microcredentials at an institution or within a system, creating a community of practice is an effective way to share ideas, jointly discuss and solve challenges, and further spread the value of the program among other faculty and staff.

Understand the Student's Perspective about Completion

Understanding how students view completion associated with a Google Professional Certificate is a complex issue. Each Google Professional Certificate is comprised of six to eight courses. And, each course contains multiple modules. After completing each module, students receive a certificate of completion. However, to earn the final certificate students must complete all of the modules. Based on qualitative data, some students value completing a particular module, while others want to complete all of the modules and earn the Google Professional Certificate. In the future, a survey should be developed to better understand the value students place on completing individual modules, completing all the modules to earn a Google Professional Certificate, or both.

Conclusion

Microcredentials are used to meet a variety of needs that range from rounding out and enriching a degree program, fostering persistence and retention, demonstrating competency in technical skills, and enhancing employability outcomes. This case study provides an example of how UTA created a co-curricular opportunity for students to earn one of five Google Professional Certificates that provide additional technical and 21st-century power skills, expand their career opportunities, and improve their post-graduate earnings. By combining various types of credentials, students gain the deeper concepts from an academic degree and specific skills from a microcredential, which benefits students, faculty, and employers.