

Competency-Based Education in Business and Accounting

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Abstract

Competency-based education programs in the United States have grown over the past decade in response to the need to address adult learners who have earned some college credits but have not earned a degree. Hundreds of colleges have either developed or are developing competency-based education (CBE) programs, which separate learning from credit hours. Students complete assignments and/or projects to achieve mastery of competencies. This paper describes the state of CBE programs, focusing on business programs, which represent about one third of programs reported through a national survey. Discussion of University of Wisconsin System's programs follows, including a specific business program within the system as well as its accounting coursework. Program level competencies and sub-competencies for the undergraduate CBE and traditional business programs are very similar; however, the mechanisms by which students are assessed in these programs are different since CBE programs emphasize authentic assessment.

Keywords: competency-based education, CBE, mastery, authentic assessment, nontraditional student, flexible, business education, University of Wisconsin, UW Flexible Option BSBA, financial accounting, managerial accounting, competency

Introduction

Competency-based education (CBE) is becoming more popular in higher education with more than 600 colleges in development of such programs as recently as 2016 (Fain 2016). Relatively few programs focus on business, and even fewer focus on accounting. This paper describes the state of CBE programs in business education as well as illustrates one institution's journey to develop such a program in less than one year. In addition, it will describe the accounting courses in this program and experiences within these courses in the first few years of the program.

What is Competency-Based Education?

... were the following: 1) the cost of higher education was increasing; 2) state funding was decreasing, and 3) the need for more college degrees in the United States was becoming increasingly prevalent (Brower 2014). Studies had shown that there were nearly 31 million adults in the prior 20 years

¹ Acknowledgement: I would like to thank Dr. Suresh Chalasani, Program Coordinator for the University of Wisconsin Flexible Option Bachelor of Science in Business Administration (Flex BSBA), as well as all of the program faculty and staff, especially fellow accounting competency set authors Carl Gahala, Matt Raunio, and Elizabeth Schmidt.

in this country who had completed some level of college but who had not earned a degree (Shapiro, Dundar, Yuan, Harrell, Wild, and Ziskin 2014). Of those 31 million, roughly 11 percent, or 3.5 million people, were considered “partial completers: former students with two or more years’ worth of progress” toward a college degree (Shapiro et al. 2014). In response to the need for degree-completion programs, many universities developed competency-based programs to assist these adult learners with flexible programs with the objective of helping them to achieve degrees in an innovative way: ideally in a shorter timeframe and with a lower cost.

Competency-based education in higher education is typically targeted toward adult learners. Unlike a traditional credit-based system which focuses on time, CBE focuses on mastery. In the traditional model, time is constant and fixed in terms of a specific semester schedule, but learning is variable (Brower 2014). In CBE, time is variable in that students can start and complete courses in a flexible format, but mastery is fixed. Students must demonstrate **mastery** of each and every learning outcome by moving from knowledge to skills to abilities to application and transfer. This is typically done through a series of assessments that students are required to complete at a minimum threshold to indicate that they not only understand a given topic but also can apply it in a proposed situation.

Students complete assignments, projects, and/or quizzes at their own pace using learning resources, and competency-level assessments are used to determine whether a student has mastered a given learning outcome. Those with prior learning or experience in specific areas can move through the curriculum at a faster pace than in a traditional classroom setting. A student enrolls for a subscription period, which is a defined length of time that varies from seven to 12 weeks depending on the program and the institution. These subscription periods typically start around the first of each month, offering students the opportunity to take courses year-round. Most involve a “learn as much as you want” model within the subscription period, which is offered at a flat tuition rate.

This innovative model appears to be evolving. The American Institutes for Research (AIR) conducts an annual national survey called the National Survey of Postsecondary Competency-Based Education (NSPCBE). In the most recent study, the AIR found that roughly 11 percent of universities and colleges offer competency-based programs² (Mason and Parsons 2019, 11). While many colleges use competency-based **approaches** in their curricula, the definition of a competency-based **program** is as follows (Mason and Parsons 2019, 9):

“To be classified as a CBE program, an entire program must contain at least one of the following characteristics:

1. Learning is mastered in competencies and either quantified without reference to seat time or mapped to measures of seat time.
2. Students advance from the course or complete the program based on mastering all required competencies.
3. Courses or programs offer flexible pacing.”

Within competency-based programs, an important distinction should be made regarding **direct-assessment** CBE programs and **credit-based** CBE programs. In **direct-assessment** CBE programs, student progress is achieved by measuring students’ progress toward achieving competencies without dependence on credit hours. In such programs the program-level

² A total of 64 out of 602 respondents reported 588 CBE programs in 2019. In the 2018 study, 57 institutions reported 512 CBE programs. (Mason and Parsons 2019, 3)

competencies, assessment-level competencies, and their outcomes are defined, students need to demonstrate mastery of these competencies, and there is no translation of the student effort in achieving mastery to credit hours. A *credit-based* CBE program estimates the amount of student effort spent in achieving mastery of competencies and translates the effort into credit hours, typically using the federal credit hour definition. *Credit-based* CBE programs provide an easier crosswalk of competencies to traditional programs which are based on courses and credits.

While presently no publicly available data has been found that demonstrates the number of direct-assessment programs as compared to credit-based programs, the NSPCBE includes a number of demographic characteristics of CBE programs. Of those with CBE programs, 73 percent were in four-year institutions, and 24 percent were in two-year institutions (Mason and Parsons 2019, 22). In addition, the levels of undergraduate programs were also described, as indicated in Table 1. Percentages add up to more than one hundred as the question allowed multiple responses as many institutions offer multiple programs at multiple levels.

Table 1: Level of Undergraduate CBE Programs Offered
n=64

Degree/Program Level	Percentage
Bachelor's degree	57%
Certificate	51%
Associate's degree	40%
Certificate	9%

Source: Mason and Parsons 2019, 46

Nursing, computer sciences, and business administration lead the disciplines of CBE programs reportedly offered, as indicated in Table 2. Again percentages add up to more than one hundred as the question allowed multiple responses, and many institutions offer CBEs in multiple disciplines.

Table 2: Discipline of Undergraduate CBE Programs Offered
n=64

Discipline	Percentage
Nursing and health professions	42%
Computer and information sciences	35%
Business administration	34%
Education	23%
Mechanic and repair technologies	16%
Liberal arts and humanities	11%
Social sciences	8%
Biological and life sciences	7%
Construction trades	7%
Physical sciences	1%
Other	29%

Source: Mason and Parsons 2019, 46

The NSPCBE further found that a variety of modalities, including online-only, face-to-face, and hybrid or accelerated formats, are offered for CBE programs; no one format stood out as the majority (Mason and Parsons 2019, 24). The disciplines noted above were found to be relatively consistent with trends in degrees awarded throughout the United States. It appears that most programs qualify for federal student aid, as the study further indicated that 77 percent reported that they were eligible for federal financial aid, including Pell Grants and student loans (Mason and Parsons 2019, 31).

In addition, most programs still serve a relatively small number of students, as more than half of the responding institutions reported programs with fewer than 50 students (Mason and Parsons 2019, 25). Additional research found that the larger programs appear to be through Western Governors University, Southern New Hampshire University, and Capella University (Fain 2019).

Competency-based programs have grown over the past several years and are predicted to continue to grow. Roughly 76 percent of the respondents to the most recent NSPCBE expect the number of CBE programs in the United States to grow in the next five years (Mason and Parsons 2019, 38). Texas A&M University—Commerce offers a Bachelor of Applied Arts and Sciences in Organizational Leadership and has reported growth of full-time equivalent students of 46 in 2014 to 383 in 2015, followed by 559 in 2016. Data from 2017 reported 1,023 full-time equivalent students (Rivers, Gibson, Contreras, Livingston, and Hanson 2019).

In a recent podcast related to next steps for CBE, Charla Long, executive director of the Competency-Based Education Network (C-BEN), a national consortium of colleges and systems, expressed optimism for the growth of CBE programs (Fain 2020). Citing a statistic (as previously stated in this paper as well) that indicated that CBE programs numbered approximately 600 in the United States in recent years, she stated slow but steady growth was occurring prior to the pandemic. Since then, higher growth rates are predicted in CBE programs as evidenced by attendees at this year's CBExchange, an annual conference hosted by C-BEN and described as the foremost conference on CBE, where institutions not previously represented at this conference sent multiple attendees to learn more about CBE. Those institutions that already had CBE programs pre-pandemic continued to grow and weren't as negatively impacted as traditional programs that weren't as ready to do remote learning. As a result of the pandemic, many institutions have moved to remote learning, and leaders are considering that "...CBE could be part of a solution to re-think higher education post-pandemic."

Little has been published about the comparability of competency-based programs and traditional programs. One study by Mayeshiba, Jansen, and Mihlbauer (2018) compared *critical thinking* as measured using the Valid Assessment of Learning in Undergraduate Education (VALUE) rubric sponsored by the Association of American Colleges and Universities to compare students in a nonterm, direct assessment competency-based class with those in a traditional online version of the course. Findings indicated that students in the competency-based program performed better than students in the traditional online version of the course. Due to the small sample size and limitations of the study, additional replication was suggested.

Business Programs

As previously discussed, business is among the disciplines that are relatively common in competency-based programs. While relatively little has been published specifically about CBE programs in business, data can be extrapolated to estimate the number of programs currently

offered in this discipline. According to the National Center for Education Statistics (2019), in the 2016-2017 academic year, a total of 6,606 postsecondary Title IV institutions were in the United States. Based on this information, since the NSPCBE found that 11 percent of institutions offer at least one CBE program, it can be estimated that approximately 725 institutions in total offer CBE. If that is the case and, as indicated in the same study, 34 percent of those institutions offer a business program, it can be estimated that roughly 245 competency-based programs are offered in business and related disciplines. The larger institutions previously specified – Western Governors University, Southern New Hampshire University, and Capella University – all offer one or more such programs.

Since CBE programs are still relatively new, no official organization publishes rankings of CBE programs. As a proxy for this, a marketing-oriented publication, My Degree Guide, an online publication with a 13-year history, was used to determine which of the “top” competency-based programs offer degrees in business-related disciplines. The result is Table 3 as illustrated below.

**Table 3:
Leading Competency-Based Business Degree Programs
Undergraduate Level**

University (listed alphabetically)
Brandman University
Capella University
Northern Arizona University
Purdue University—Global
Southern New Hampshire University
Texas A&M University – Commerce
University of Wisconsin
Walden University
Western Governors University
Westminster College

Source: Collins 2020

According to this source, all ten of these institutions are regionally accredited. Interestingly, only one of these universities with undergraduate CBE degrees in business specifically offers a bachelor’s degree in accounting. This institution, Capella University, offers students the choice of completing an accounting degree through FlexPath™ which is a competency-based program with 12-week subscription periods or through GuidedPath™ which is more traditional in nature (Capella University 2020).

While only this university was found to offer competency-based degrees specifically in accounting, it is hypothesized that all or most business degrees would require one or more courses in the principles of accounting. As a result, it is likely that more than 200 institutions are offering some type of competency-based program that includes accounting coursework based on previous extrapolations of data.

University of Wisconsin Competency-Based Education (CBE) Programs

To address the need for more college degrees and provide adult students with a flexible way to meet their academic goals, particularly those who have some college credit but have not yet attained a degree, the University of Wisconsin System launched its flexible option – UW Flexible Option – in 2013. In that year, the Higher Learning Commission of the North Central Association of Colleges and Schools approved the Flex format for the degrees and programs in place within the University of Wisconsin System at that time. Table 4 illustrates the programs currently available and the institutions through which they are currently offered.

**Table 4:
UW Flexible Option Degree Programs and Institutions**

Degree	Institution
Associate of Arts and Science	University of Wisconsin-Milwaukee as of July 1, 2018 ³
Bachelor of Science in Business Administration (Flex BSBA)	University of Wisconsin-Parkside as of March 1, 2019 ⁴
Bachelor of Science in Biomedical Sciences: Diagnostic Imaging	University of Wisconsin-Milwaukee
Bachelor of Science in Biomedical Sciences: Health Sciences	University of Wisconsin-Milwaukee
Bachelor of Science in Information Science and Technology	University of Wisconsin-Milwaukee
Bachelor of Science in Nursing (RN to BSN)	University of Wisconsin-Milwaukee
Certificate: Business and Technical Communications	University of Wisconsin-Milwaukee
Certificate: Project Management	University of Wisconsin-Parkside
Counselor Certificate: Substance Use Disorders	University of Wisconsin-Madison

Source: University of Wisconsin 2020

As demonstrated in this table, all programs are offered through existing UW institutions. Groups of faculty and academic staff at UW partner institutions, subject matter experts in their fields, developed the programs and courses for the programs. Curriculum development began with large program-level competencies, focused on what students will be able to demonstrate upon completion of the program. Within each course, assessment-level competencies were then established, mimicking learning outcomes of traditional courses.

Students can enroll in a three-month subscription period, starting at the beginning of any month. Each program follows an “all you can learn” model where students can enroll in and

³ Formerly part of University of Wisconsin Colleges, the UW System’s network of freshman and sophomore campuses.

⁴ Flex BSBA was formerly offered by UW-Extension since December 2016; the program received Higher Learning Commission accreditation and is AACSB-accredited as part of the portfolio of programs at the University of Wisconsin-Parkside.

complete as many courses as they can during this subscription period at a flat tuition rate, offering students the opportunity to minimize their tuition costs. Each program is self-paced, offering students the flexibility they need. For most of the Flexible Option programs offered by the University of Wisconsin System, financial aid is available. All CBE programs offered by the UW System moved from a direct-assessment model to a credit-based CBE program and received Higher Learning Commission (HLC) accreditation in June 2020; this change enabled easier approval of federal financial aid for programs such as Flex BSBA. When financial aid was not available, UW System provided grants to help students cover tuition expenses.

Curriculum is primarily offered online, although programs such as nursing include hands-on or other in-person assessments and experiences. Online content is offered through the UW System's course management system, which is now Canvas. Competency sets / courses were originally developed in Brightspace, formerly Desire2Learn. Content is offered through curated resources, formative assessments, and exercises.

Assessments take the form of quizzes or projects, often simulating real-life scenarios which afford *authentic assessment*. The UW Flexible Option defines *authentic assessment* as “an assessment that tests a particular skill or knowledge set as closely to real-life application as possible” (Finley 2017, 3). Students work on practical, hands-on projects from scenarios they will likely encounter in the workplace. Further, students must demonstrate mastery which is defined as 80% or higher in every assessment they complete.

Prior to 2016, business-related curriculum was minimally offered in competency-based programs within the UW System. Competency sets in introductory accounting were, and still are, offered as an option to meet application and performance requirements in the Associate of Arts and Science degree offered through UW-Milwaukee. In addition, some business-related competencies are included in the Business and Technical Communications Certificate.

University of Wisconsin-Parkside's Flexible Option Bachelor of Science in Business Administration (Flex BSBA)

Recognizing the need to offer a business degree in a competency format to meet the needs of adults with prior credits, the University of Wisconsin System considered expansion of its UW Flexible Option to include this discipline. The University of Wisconsin Extension, an arm of the system that had worked collaboratively with UW-Milwaukee and UW Colleges to develop online components and infrastructure related to the Flex Option, was authorized by the Board of Regents in 2016 to grant its own degree. A group of faculty, staff, and administrators convened in early 2016 with the goal of developing and implementing an undergraduate business degree program by the end of that year through UW-Extension. While a lofty goal, that goal was met, as the University of Wisconsin Flexible Option Bachelor of Science in Business Administration (Flex BSBA) launched in December of 2016; its first students enrolled that month. The accelerated development of this program was unprecedented. Because the program was the first degree to be offered through the then-UW Extension, it was not yet accredited through the Higher Learning Commission. Since accreditation can be a long process, going through the eligibility and candidacy process, the program needed to be in place to begin that process. As dedicated faculty members, the group knew that it was in the best interest of the program to develop and launch quickly.

History and Changes

During the history of the program, several changes occurred within the system. In October of 2017, the system president, Ray Cross, announced a proposed merger between the 13 two-year freshman and sophomore campuses that were then part of the University of Wisconsin Colleges and the four-year comprehensive or research institutions. That merger subsequently took place on July 1, 2018. During this interim period, the new program was not actively marketed, and additional accreditation work was paused. In June of 2018, the Board of Regents approved the proposal to bring the Flex BSBA to the University of Wisconsin-Parkside. Existing students were able to continue in the program, and new students continued to enroll with the program still offered through UW-Extension in the interim.

In January 2019, the program became accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools, and as of March 2019, the program officially became part of UW-Parkside. Since UW-Parkside's business department is accredited by the Association to Advance Collegiate Schools of Business-International (AACSB), the program became the first CBE program accredited by the AACSB. To date, Flex BSBA is the only competency-based undergraduate business program to be accredited by AACSB as verbally communicated to UW-Parkside deans by AACSB staff and peer review team (Chalasanani 2020). In response to the addition of this program, AACSB has included changes in its interpretation standards to include competency-based programs. UW-Parkside undergoes accreditation review once every five years and remains accredited.

Program Development and Competencies

Faculty members from several universities throughout the University of Wisconsin System, including the then-UW Colleges, came together to develop this general business program, first developing program-level competencies covering a broad array of business disciplines. The group considered what graduates of the program should be able to do after completion of the program, also taking into consideration the skills and competencies employers would want in a graduate. The three stages of backwards design, as developed by Wiggins and McTighe (2005, 18) were used as follows:

- *“Stage 1: Identify desired results.”* These led to both program-level and assessment-level competencies.
- *“Stage 2: Determine acceptable evidence.”* This helped faculty to develop rigorous and authentic assessments.
- *“Stage 3: Plan learning experiences and instruction.”* Focusing on this step last helped faculty members to select curated content and build learning resources.

Starting with a clean slate, faculty researched other programs within the University of Wisconsin System as well as other aspirant universities to determine the appropriate program-level competencies. After several small-group and large-group exercises over the course of approximately one month, the group developed the eight program-level competencies indicated in Table 5.

Building upon these eight program-level competencies, more than 110 assessment-level competencies were developed, representing hundreds of learning outcomes. Assessment-level competencies were designed to be able to demonstrate specifically what had been mastered. Special attention was paid to make sure they were measurable and included an action verb, the

content or skill or knowledge that a learner has mastered, and the context or circumstances in which the learner would apply the skills. To ensure that assessments were developed to be as similar to real-world experiences as possible, nearly 40 projects were developed throughout the curriculum, some of which span various courses. For example, business communication competencies are incorporated into projects that are primarily within other disciplines (i.e., information technology, statistics, marketing, organizational development, international business).

These projects represent scenarios similar to those that students will likely experience in their careers, meeting the definition of *authentic assessment* previously described. In contrast to summative assessments used in many traditional programs, few multiple choice assessments are used throughout the program. Most assessments are project based and unique to the program, requiring students to apply concepts to a practical scenario. These characteristics enhance the curiosity on the part of students, which likely draws them into the practical scenario and problem-solving approach; this, in turn, may increase the likelihood that students perform their own work, without assistance from others. Since there are no readily available answers in a book or other sources, students are required to apply their knowledge, skills, and abilities and seek guidance from the instructors when needed. In addition, structured rubrics are used and calibrated across the program to enhance inter-course reliability.

Table 5:
Flexible BSBA Program-Level Competencies

1.	Demonstrate social and personal responsibility and ethical behavior for organizational contexts.
2.	Apply financial tools and techniques to meet organizational objectives.
3.	Design and evaluate operations, supply chain, marketing, human resources, management systems, structures, and processes in organizations.
4.	Apply information technology and research methods to improve organizational decision making.
5.	Evaluate scenarios impacting an organization and respond using diverse communication strategies.
6.	Evaluate economic, political, regulatory, legal, technological, and social contexts to address organizational challenges in a global society.
7.	Apply intercultural knowledge, interpersonal skills and teamwork to function effectively in diverse environments.
8.	Employ critical and systems thinking to create an integrated multi-functional strategy to meet organizational objectives.

Source: University of Wisconsin 2020

Instructional designers through UW-Extension were valuable partners throughout the development process, as well as beyond. Instructional designers facilitated curricular development, sharing their expertise in course design as well as ensuring Americans with Disabilities Act compliance, in addition to copyright and fair use compliance. They also provided quality assurance checking and managed the development of the course management site, which was originally in Brightspace (formerly Desire2Learn). Courses were transitioned to Canvas during the summer of 2019, when the University of Wisconsin System made the change

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to this learning management system. Instructional designers continue to be critical partners post launch, as they often assist with any needed modifications, clarifications, questions, or concerns within the learning management system.

Similar to other undergraduate programs, 120 credits are required, as follows:

- 65 competency-area (program) credits
- 42-45 general education credits
- 10-13 elective credits

Many students come into the program with prior credits, as this program is primarily targeted towards adults with prior college credits. No prior learning assessment (PLA) credit is offered in the program, however. Because this is a competency-based program, the assumption is that those who have prior experience in a given area would be able to quickly complete a course in that topic. For those who do not have the appropriate general education equivalents, students are often referred to the UW Flexible Option Associate of Arts and Science program, now offered through UW-Milwaukee, to complete those requirements. The 65 program credits are comprised of 20 competency areas, as identified in Table 6.

**Table 6:
Flexible BSBA Competency Areas**

Business Algebra	Business Communication
Business Economics I	Business Economics II
Business Law and Ethics	Business Statistics
Finance	Financial Accounting
Global Business	Human Resource Management
Information Systems	Managerial Accounting
Marketing	Operations Management
Organizational Behavior and Leadership	Project Management
Sales	Strategic Management
Supply Chain Management	Integrative Capstone Project

Source: University of Wisconsin 2020

The result is a rigorous, competency-based program targeted toward adult learners. Although students learn at their own pace, they have frequent contact with their instructors through a process called Flex Check-In where students are asked to respond to an open-ended question about their learning, creating two-way communication. Students reach out to instructors as needed and receive robust feedback from instructors on assessed competencies. Within a given subscription period, students typically are offered two attempts to master a competency. If a competency is not mastered, a student can re-enroll in a course and repeat the assessment in another subscription period, representing iterative learning.

In addition, each student is assigned an academic success coach (ASC) who offers personalized assistance throughout the duration of their program, going beyond the traditional advisor role, and serving as the student's support system. In addition to academic planning, coaches help each student develop an individual leaning plan, develop study strategies, provide systems and process support, provide life coaching, and assist with academic content support. Although they do not have a role in curriculum development nor delivery, ASCs do meet with

faculty on a frequent basis to make sure they themselves understand the requirements of each course, staying in touch on what is seen as some common questions that can be proactively addressed in terms of helping students to navigate the course. Since these professionals supplement faculty support and play a key role in student success, each is required to have a master's degree and meet stringent requirements as well as undergo extensive training.

It should also be noted that many of the certification exams offered by organizations such as Society of Human Resources Management, Project Management Institute, and Institute of Management Accountants do accept regionally accredited bachelor's degrees. The Flex BSBA degree prepares students in concepts related to these exams in the long term.

When comparing the traditional business program at UW-Parkside with the Flex BSBA program, program-level competencies match very well. This includes program-level competencies in ethics, critical thinking, diversity, communication, computer technology skills, and functional areas such as finance. The more than 110 assessment-level competencies in Flex BSBA also match with course-level competencies in the traditional program. The programs are very similar in terms of expecting students to master similar competencies. However, the techniques for assessment are different. Traditional programs might use more exams and quizzes whereas the Flex BSBA program uses authentic scenarios that students may expect to see in the workplace.

Accounting Competencies and Coursework

As indicated in Table 6, competencies in financial and managerial accounting are included in the program, which are typically foundational in a business degree program. Within the Flex BSBA, a total of six credits of accounting competencies are included, as indicated in Table 7.

**Table 7:
Flexible BSBA Accounting Courses**

Financial Accounting		
Gather, record, analyze, and evaluate financial accounting information in the organization.		
Number	Title	Credits
BAEF 200x	Financial Accounting: The Language of Business	2
BAEF 201x	Financial Accounting: Ethics and Internal Control	1
Managerial Accounting		
Identify and utilize relevant accounting and financial information for managerial decisions.		
Number	Title	Credits
BAEF 210x	Cost Accounting Fundamentals and Applications	1
BAEF 211x	Master Budget and Variance Analysis	1
BAEF 212x	Using Managerial Accounting Information for Decision Making	1

Source: University of Wisconsin 2020

The courses have similar competencies and learning objectives as financial and managerial accounting courses in traditional business and accounting programs. Financial accounting courses include six assessment-level competencies which are assessed through 16 unique assessments or project components. Managerial accounting courses include eight

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assessment-level competencies which are assessed through 22 unique assessments or project components. Each assessment or project component is mapped to the competency it aligns with and is shared with students in the syllabus for transparency. While assessment-level competencies and related assessments are proprietary, a description of one such assessment, along with its rubric and revision notes, is included in Appendix A.

Learning builds on prior learning in a sequenced fashion. Although no prerequisite is required for BAEF 200x, it is a requirement for the second financial accounting course, and the second financial accounting course is a prerequisite for the first managerial accounting course. The latter managerial accounting courses can be completed in either order after the first managerial accounting course is completed.

In addition to providing many supplemental learning resources, all accounting courses require the use of a textbook. One financial accounting textbook can be used for both financial courses, and a different managerial accounting textbook can be used for all three managerial courses. Since basic foundational principles change infrequently, students are encouraged to purchase a previous edition of each specified textbook to keep costs low. As courses are revised, a different edition will be recommended, but typically any somewhat recent edition is sufficient.

Student enrollment in the degree program overall is now in the hundreds and is gaining strong interest from students. In the fiscal year 2019-20, more than 110 unique students registered for courses in the Flex BSA program (Chalasan 2020). Unique students taking one or more accounting course now approach 100. Not all students who come into the program take these accounting courses, as some students come into the program with equivalent credits. Some have credits in financial accounting only and start with the managerial accounting classes. Information on enrollment and completion, as indicated by the percentage mastered, can be seen in Table 8.

Table 8:
Flexible BSBA Accounting Courses: Student Enrollment and Mastery⁵

Number	Title	Students Enrolled	Percentage Mastered	Percentage In Progress
BAEF 200x	Financial Accounting: The Language of Business	74	28.2%	71.8%
BAEF 201x	Financial Accounting: Ethics and Internal Control	19	73.3%	26.7%
BAEF 210x	Cost Accounting Fundamentals and Applications	27	56.0%	44.0%
BAEF 211x	Master Budget and Variance Analysis	11	60.0%	44.0%
BAEF 212x	Using Managerial Accounting Information for Decision Making	10	88.9%	11.1%

Source: Specht-Boardman 2020

This table illustrates a relatively slow progression through the accounting competencies. Based on reflection of faculty members, this is not surprising, as anecdotal feedback discussed

⁵ Data represents the program from December 2016 inception through the April 2020 three-month subscription period.

among faculty members and academic success coaches indicates that many students enroll in more courses than they can realistically complete in a three-month subscription period. Recommendations are being made to students to enroll in the number of courses that are realistic to complete in a subscription period, as they can enroll in additional courses when others are completed. In addition, it is also acknowledged that many students are starting the program as adult, non-traditional students. Returning to school after a long lapse, they may need more time to complete each course, especially early in the program, which is typically when foundational courses such as financial accounting are taken. It is also observed in this table that, while many students have enrolled in the financial accounting competencies, relatively fewer have completed the managerial accounting competencies. This may be due to financial accounting being a prerequisite for other courses, with managerial accounting being taken later in their program.

This relatively slow progress is again discovered when looking at number of subscription periods needed to complete a credit. As seen in Table 9, on average it takes one subscription period, which is a 12-week period, to complete one credit. This is not particularly surprising, as a review of recently admitted students to the program showed that 94 percent of the students were employed at the time of admission, and the average age of students in the program is approximately 35 (Specht-Boardman 2020). Although data has not been gathered on family circumstances, anecdotal information from student-to-faculty communication indicates that many work full time and have family obligations as well, contributing to this slower pace. In addition, it should be noted that students are typically enrolled in multiple courses per subscription period. Full-time students need to take six credits per subscription period. Thus, they can complete the 65 credits required for the Flex BSBA degree (after acquiring an associate's degree with general education credits) in 10.5 subscription periods or approximately 2.5 years.

**Table 9:
Flexible BSBA Accounting Courses:
Subscription Periods to Complete One Credit⁶**

Number	Title	Average Subscription Periods to Complete One Credit	Credit Equivalent
BAEF 200x	Financial Accounting: The Language of Business	2.05	2
BAEF 201x	Financial Accounting: Ethics and Internal Control	1.25	1
BAEF 210x	Cost Accounting Fundamentals and Applications	1.50	1
BAEF 211x	Master Budget and Variance Analysis	1.67	1
BAEF 212x	Using Managerial Accounting Information for Decision Making	1.20	1

⁶ Represents data from the March 2019 subscription period through the April 2020 three-month subscription period (ending June 30, 2020). Due to learning management system change from Brightspace (formerly Desire2Learn) to Canvas in Summer 2019, prior data not readily available.

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Source: Specht-Boardman 2020

As previously indicated, students in the program are offered two attempts to master a competency within a subscription period. The minimum score required for mastery is 80 percent. Competency marks in the courses are typically assigned as indicated in Table 10.

**Table 10:
Flexible BSBA Competency Marks**

Competency Mark	Abbreviation	Percentage Range
Mastery with Distinction	MD	90-100%
Mastery	M	80-89.9%
Not Yet Mastered / In Progress	PR	< 80%

Source: University of Wisconsin 2020

Each and every assessment must meet the 80 percent threshold to achieve mastery. Beginning with the July 2020 subscription period, grades on the second attempt of assessments are limited to mastery; however, exceptions due to special circumstances may be granted at the discretion of the professor teaching the course. If a competency is not mastered within two attempts within a subscription period, a student can earn a grade of “In Progress” (PR) and can re-enroll in a course and repeat the assessment in another subscription period. A student is limited to five PRs before the grade becomes an “F.” However, a student can retake the course again after getting an “F” and obtain a better grade as per UW-Parkside policy. To date, most repeats have been due to a lack of completion versus multiple attempts of assessments.

After a course is completed at mastery, students are asked to complete a Course Evaluation Survey. The survey is optional and anonymous, and students are asked to complete one for each course. This is primarily used by faculty for course revision suggestions as well as for academic success coaches to proactively address student concerns in the future. In addition, it is used as part of the program assessment process. Student course evaluations are also utilized for faculty merit evaluations and for the purposes of promotion and tenure. Since 18 students have responded regarding accounting competencies, data have not been statistically analyzed due to the small sample size and high satisfaction level, as all responses were either “strongly agree” or “agree” to the questions asked. Specific questions can be found in Appendix B. Qualitative feedback was largely positive. Here are some comments from the survey:

- “I enjoyed this class. The practice assignments helped with the assigned ones. Enough data to get the idea without drowning me with repetitive projects. A+ for faculty attitude. Very positive and helpful feedback.”
- “This is a well-structured project. BAEF 200 provides the necessary foundation and flows right into the early assignments in 201, which in turn supports the final assignment. I was quite worried over taking the project, but it was an extremely positive experience. I definitely did learn the material.”

Anecdotally, when reviewing graduates of the program to date, students have found tremendous success in either finding better jobs or advancing in their current organizations. One such success story is Gabrielle Rivera, who earned both the BSBA and the project management certificate. She was hired as the director of business development at General Dynamics

Information Technology for Federal Financial Agencies less than one month after graduating in Spring 2020. Ms. Rivera made the following comments (Martin 2020):

- “My current career is 100% a testament to what I have learned in the UW Flexible Option program. I have a solid platform to launch from, which is far from what I could say before I started the program.”
- “To have such a deep accounting background has helped me gain a lot of confidence. In my current role, colleagues often give Excel spreadsheet presentations, and I have been able to ask the important questions, to peel back the layers of the data and really understand how we are going to positively affect the business with that information—how we are going to turn something around or solve a problem. I know I can do that now.”

Faculty Observations

As a co-developer for the managerial accounting competencies and a faculty member and assessor for both financial and managerial accounting competencies, the author has made several observations. Interestingly, many of these comments are not dissimilar from observations made regarding face-to-face classes and student behavior in those classes.

- Importance of the textbook. It appears that some students attempted to do the assessments without using the learning resources, particularly the textbook. This was evident by the poor performance on the first attempt of the first assignment. A student reinforced this observation by stating the following in the program evaluation survey: “I would highlight just how necessary the book is to the success in this course in the orientation as well as throughout the project. It is listed as a required material; however, it is easy to think the additional resources will aid rather than the book.”
- Appearance of gaming. Similar to the above observation, some students appear to attempt to “game” the system by doing the first attempt of an assessment without using the learning resources, such as the textbook, nor doing the practice exercises to actually learn the content. Because they have the opportunity to attempt the assessment a second time, they may not feel it is necessary to get it right the first time. This observation, echoed by other faculty members in the program, led to the July 2020 change to awarding a grade of no higher than mastery on the second (and subsequent in later subscription periods) attempts.
- Occurrence of plagiarism. Some projects within the accounting competencies require research and short papers. In a few situations, it appeared that a student was copying sections of text, word for word, from the internet, which was evidenced by a quick Google search. While it is up to the instructor to determine appropriate repercussions according to UWS Chapter 14, Student Academic Disciplinary Procedures, a first offense can be a zero on the offending assignment. A zero in a competency-based program that offers a second attempt really is little to no punishment and is not a strong sanction. At minimum, a letter should be placed in the student’s file to document the situation. Though the occurrence of plagiarism is at a low percentage in this program, it demonstrates that the challenges and processes for CBE programs are, in some respects, very similar to traditional programs.
- Struggles with cash flow statements. Within the financial accounting assessments, students appear to struggle the most with cash flow statements, particularly the indirect

method for operating activities. This seems to mirror challenges in a traditional face-to-face class.

- Frustration with understanding program requirements. Students who are early in their program are sometimes frustrated when they do not master a course in their first subscription period, mistaking the 80 percent mastery threshold as a “weighted average” throughout the course rather than a minimum of 80 percent on *each* assessment. After further discussion with the academic success coach or faculty member, the student typically understands but is still annoyed if they “just missed” mastery by a few points on one assessment but did well in other areas. Both faculty and academic success coaches are working hard to ensure students understand these requirements.
- Attention to detail is important. Similar to traditional students, those in a competency-based program need to pay attention to detail, and sometimes students miss important details. One example is in a ratio analysis assessment where students can select publicly traded companies on which to conduct a variety of analyses. The students are specifically asked to use financial statements from a specific year, and many miss this detail. Revisions were made to the course in 2020 to help students to minimize this error. This is further described in Appendix A as previously referenced.

Iteration and continuous improvement are important to this program. The financial accounting courses were revised in 2020, and revisions are planned for the managerial accounting courses for 2021. Moving forward, courses are projected to be revised in three-year cycles. Curricular improvement forms guide this process, which includes faculty and academic success coach input as well as direct and indirect assessment. Instructional designers also provide input, and the resulting revision is reviewed using a modified Quality Matters rubric.

Concluding Remarks

Competency-based programs have seen tremendous growth in the past decade, both in terms of number of programs offered and number of students enrolled. As the first and only competency-based business degree in the University of Wisconsin System, the Flex BSBA program appears to be positioned well to continue its growth. Its HLC and AACSB accreditation will facilitate this growth, along with additional marketing efforts.

Competencies and learning outcomes are similar to those found in other business programs within the system, and it can be hypothesized that students graduating from this program can demonstrate a similar skillset to those graduating from a traditional program. More study would be required to prove this with a degree of certainty. One consideration would be to administer pre- and post-tests to students prior to completing coursework in various business disciplines, such as accounting, in both the Flex BSBA program offered through the UW-Parkside campus as well as traditional accounting classes offered on the UW-Parkside campus. Comparing growth in mastery between these two programs may prove insightful. It is advisable, however, to wait until after the current pandemic crisis before conducting such an experiment.

It may also be of benefit to the University of Wisconsin and/or other institutions that offer competency-based education programs to develop an educational strategy to help employers better understand the value of a competency-based degree. A study by Henrich (2016) indicated that employers lack familiarity with this type of model. Since employers appreciate

having a voice in identifying the skills and competencies needed in the workforce, seeking their input and educating them on the value of this type of program is advised.

As CBE programs grow, more studies comparing CBE and traditional programs will be designed and completed. As previously indicated, graduates of the Flex BSBA program to date have found tremendous success in either finding better jobs or advancing in their current organizations. However, further large-scale studies will likely be completed in the future to compare outcomes of both types of programs as well as enhance employer awareness and acceptance of these programs. It would also be advisable to further compare success rates of candidates holding CBE degrees versus traditional degrees in certification exams.

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Appendix A Accounting Assessment Example

Assessment: Ratio Analysis of Public Companies Found in BAEF 200x, Financial Accounting: The Language of Business

Description

This assessment is used to assess a student's ability to calculate financial ratios, analyze the results of those calculations, and compare the results of two close competitors.

Part 1: Students are provided with links to financial statements of two publicly traded companies in the same industry. They are asked to use the information contained in the financial statements (including, in some cases, the notes to the financial statements) to calculate selected financial ratios. Students are then asked to compare the two companies and analyze company performance based on these ratios. The analysis is to be between one paragraph and one-half page long and should include what the ratio comparison means in terms of the companies' liquidity, profitability, and solvency. It should also include a discussion of which financial users would be interested in this information.

Part 2: Students are asked to choose two companies from a list and perform the same ratio analysis and calculations. While instructed to choose two companies in the same industry, students must choose the appropriate companies to compare, which may require additional research. Links are provided to each company's financial statements for the year specified.

Rubric

A rubric is used to evaluate each student's submission. The criteria and percentage are as follows:

- Ratio analysis: 44%
- Use of information: 44%
- Choice of companies to analyze: 6%
- Grammar and presentation: 6%

Revision Notes

The course was revised in 2020. The primary change made in this course was in relation to Part 2. In Version 1 of the course, students were given much more autonomy as they were allowed to pick any two publicly traded companies. This became very cumbersome from a faculty perspective, requiring calculations of new companies each time a submission was made. As a result, in Version 2, a total of 14 companies in seven different industries were chosen to allow the instructor to make up a single answer key to streamline the grading and evaluation process. In addition, links to each of the company's financial statements were included to increase the likelihood that students would use the appropriate year specified.

**Appendix B:
Course Evaluation Survey**

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Overall, I was satisfied with the content of this course.				
2. I understood the course and how it was graded.				
3. In general, the feedback I received <i>from faculty in this course...</i>				
3a. ...included improvements I needed to make				
3b. ...included the resources I needed to use to improve my course				
3c. ...helped me succeed in this course				
3d. ...was provided within a reasonable time				
3e. Other comments about feedback from faculty:				
4. In this program, I needed / requested <i>faculty support</i> beyond grading my assessments.	Yes		No	
	Strongly Agree	Agree	Disagree	Strongly Disagree
5. I received <i>timely scores from faculty</i> on my work.				
6. Overall, I was satisfied with the <i>Academic Success Coach</i> support that I received during this course.				
7. From the beginning of this course, I understood the differences between this competency-based program and other kinds of online business degree programs available to me.				
8. The learning resources provided were good and helped me pass the assessments.				
9. Is there anything else that you would like us to know in order to improve this program?				

Source: University of Wisconsin 2020