

# 2023 Curricular Review Report

## Introduction

The purpose of Curricular Review is to evaluate strengths, challenges and gaps in degree programs at institutions of higher education. Using a multidisciplinary team made up of members from Arts and Sciences, Business and Computer Office Technology, Career and Technical Education, and Health Sciences Divisions, the Curricular Review Committee's purpose at Great Basin College is to analyze and reflect on data related to retention, DWF, completion and low-yield programs, and provide recommendations to foster student success and sustainable programming.

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The 2023 Great Basin College Curricular Review Committee (The Committee) met a total of ten times starting on December 4, 2023, and ending on January 29, 2024. Data regarding DWF, declared majors, certificate and degree completion, retention, FTE by division and low yield reports were generated by Dr. William Brown, Great Basin College's (GBC) Director of Institutional Research, prior to his departure from the institution. The Committee wished to review data including dual credit DWFs compared to students who already earned a high school diploma, information relating to cost/benefit program analysis, and additional data for a more complete curricular review. Since GBC does not currently have an Institutional Researcher, the Committee realizes there are holes in the data that need to be filled, but we are confident we can provide general recommendations regarding DWFs, retention/student persistence, program completion, recruitment, and campus and program revival.

The recommendations within this document are based on GBC generated data, peer-reviewed journal articles, national trends, insights from GBC administration, faculty and staff, and analysis of successful department/program strategies currently in place at GBC.

## DWFs

Little **DWF** national data exists in peer-reviewed journals. The Committee was able to identify one national study containing **DWFI** trends from 2013 (see Figure 1) (Barefoot, 2013). The Committee suspects but cannot yet confirm based on the limited national data, DWF rates have increased since the Covid-19 Pandemic.

Figure 1: DFWI data from 2004-2012 showing average DFWI percentages for high-enrollment, first year gateway courses at two-year institutions.

Two-Year Institutions			
Academic Year	Institutions	Number of Courses	DFWI Average Rate
2004-2005	10	50	36%
2005-2006	13	65	36%
2006-2007	13	65	38%
2007-2008	10	50	35%
2008-2009	7	35	33%
2009-2010	19	91	38%
2010-2011	15	74	31%
2011-2012	4	19	35%
<b>Overall</b>	<b>91</b>	<b>449</b>	<b>35%</b>

National **DFWI** ('I' for Incomplete) trends for 2-year institutions for high enrollment, **gateway courses** averages 35% (Barefoot, 2013). DWF percentages generated for the 2023 Great Basin College Curricular Review focus on courses of 33% or higher (See Appendix A) and the committee is most concerned about courses showing sustained high DWFs. Although GBCs DWF rates are near the national average, the Committee encourages campus-wide support to reduce DWFs to increase student success in gateway courses and therefore increase retention rates and promote equity for **BIPOC** and first-generation college students who tend to experience higher DWF rates than other student populations (Kwak, 2020). Table 1 shows the general DWF recommendations for the 2023 Curricular Review Report. For those courses with consistently high DWFs, the committee recommends Deans, their departments and faculty work together to create course specific plans to reduce DWFs.

Table 1: Recommendations to reduce and understand DWFs.

<b>DWF Recommendations</b>
Focus on empowering students to take ownership of their education.
Develop student empowerment tools and workshops. Incorporate tools into WebCampus templates.
Develop relationships between the ASC and Departments and evaluate effective scheduling.
Disseminate <b>BrainFuse</b> information
Faculty indicate if students earning an 'F' completed, partially attended, or did not attend a course. Tie this data from PeopleSoft into DWF spreadsheets.
When students withdraw from courses, include a 'reason(s) for withdraw' dropdown list
Incorporate adaptive learning assignments in courses.
Allow for low enrollment gateway courses, such as math, social science, and science general education requirements, to be offered in person.
Ongoing, informal evaluations of PTI for DWFs and grade distribution.

## DWF Topics for Institutional Research Investigation

- Focusing on Math and English courses, does BrainFuse decrease DWF rates?
- Compare DWF rates for Dual Enrollment students vs non-dual enrollment students.
- Compare DWF rates prior to and post pandemic.
- Online vs In-Person vs hybrid DWF rates

## Retention and Persistence

Retention is a multi-headed beast located at the confluence of Academic Affairs and Student Services.

“...retention at community colleges is a highly complex, individualized process, with a host of variables that can affect individual students in different ways.....and may be more complex than traditional protocols currently in place can accurately measure” (Sullivan et al., 2023, 311).

Furthermore, success obstacles, such as students’ work and family obligations cannot be controlled by the institution (Sullivan et al., 2023, 314) (Tinto, 2015, 4).

According to Tinto (2015) the traditional perspective of retention should shift from the institution’s lens of retention, to the students’ view of persistence. Viewed from a student’s perspective, ‘persistence’ is a form of motivation that can vary over time depending on the college experience and life variables, and is influenced by the interaction of student’s goals,

self-efficacy, sense of belonging, and perception of curriculum (Tinto, 2015, 2). Campus-wide, GBC can focus on the aspects of persistence, and we can positively impact:

## Self-Efficacy

Self-Efficacy is a person's belief in their ability to succeed and influences how a student approaches learning and goal challenges. This attribute can change (positively or negatively) throughout a student's college experience (Tinto, 2015, 4). Mechanisms to improve student's self-efficacy include first year academic and social support programs, supplemental instruction, tutoring, early alert systems, shared social activities within the GBC community, interaction with advisors and faculty, and active academic engagement (Tinto, 2015, 7-8).

## Sense of Belonging

It is of utmost importance for students to feel accepted and be a member of the college community. This sense of belonging forms a bond between the student and their institution and helps students commit to their program even when obstacles arise (Tinto, 2015, 5). Sense of belonging is shaped by the college climate and interactions with fellow students, faculty, staff and administrators (Tinto, 2015, 5). Students who have a strong sense of belonging are more likely to persist and engage with others in the campus community (Tinto, 2015, 5) and may be more likely to be active alumni.

Nurturing self-efficacy and sense of belonging is particularly important during the first year of college and for first generation college students. Orientation, First Year College Experiences, on-campus social activities with peers, faculty, advisers, and staff help pave the way for student persistence and academic success. With GBC's collaborative effort, the Committee is confident the college can increase student persistence by incorporating the following recommendations (See Table 2).

Table 2: Recommendations to increase retention and student persistence.

<b>Retention Recommendations</b>
Create stackable credentials
Develop College Learning Experience Course
Develop student empowerment tools and workshops. (Academic and social efforts to improve student's self-efficacy)
Develop consistent mechanism to organize students into student groups, particularly when transitioning from Associates Degree to Bachelor's Degree
Develop a query for students who are not active in programs and contact them to help get them back on track.
Contact Early Alert students within the first week of class.
Brainstorm efforts to increase students' sense of belonging
Brainstorm efforts to increase students' self-efficacy
Engage online students with phone calls, online SGA events, and Zoom programming to increase sense of belonging.
Embed advisors in departments

## A GBC Case Study in Retention and Completion

Most GBC Health Sciences and CTE programs have high retention and completion. These programs feature several identical characteristics that contribute to the programs' successes.

- Cohorts / Learning Communities
- Embedded advisors
- Rigorous pre-requisite courses and/or rigorous application process
- Job placement or high job assurance pending graduation
- Partnerships with the community and local industries
- Significant funding and department driven scholarship opportunities

Cohorts or learning communities contribute to both the learners' self-efficacy and sense of belonging to their program and their academic institution, and help students persist through academic and personal challenges (Tinto, 2015, 5).

Embedded advisors within nursing and CTE positively impact students' self-efficacy and sense of belonging within the program and institution (Tinto, 2015, 5). The more interaction students have with faculty and staff, allows students to view themselves as a member of the community and that they matter and belong (Tinto, 2015, 5). The benefits of embedded advisors are numerous and include: 1. They increase the students' sense of belonging and self-efficacy, 2.

Students in these programs are less likely to self-advise and therefore embedded advisors guide students on the most effective path to certificate or degree completion, 3. Provides increased communication between advisors, faculty, students and program supervisors, and 4. Facilitates the transition from associate to bachelor degree programs.

Rigorous pre-requisite courses and/or rigorous application process requires a high level of commitment prior to starting the program. Compared to completely open enrollment programs, those programs with applications and significant prerequisites require long-term planning and high levels of commitment (Sullivan, 2008, 624). Students who spend two years or more preparing for admission into a degree program are highly committed to the program compared to students who enroll in classes the day before or two days after the semester commences (Sullivan, 2008, 625).

Table 3: Short descriptions of general recommendations to promote completion.

<b>Completion Recommendations</b>
Identify when students earn certificates/degrees
Offer a meeting for GBC Program Supervisors to discuss successful strategies for declared majors to complete programs
Offer More Summer Courses
Create program-specific checklists for steps to completion, for use by students, faculty, staff and advisors
Training on new, mysterious CRM for faculty and staff.
Verify appropriate associate or bachelor's degree was awarded prior to students declaring bachelor program.
Send letter of encouragement and next step checklist for students at benchmark credits
Embed Advisors in departments

## Moving Forward

Our fellow NSHE institutions, as well as private, online institutions are competing with GBC's previous monopoly on online course delivery. GBC needs to identify means to increase FTE online, in-person and with other modalities.

GBC is the only brick and mortar college along the I-80 and I-93 corridors in north central and eastern Nevada, and our Pahrump campus is in an area with a blossoming population in the southern portion of the state. All of GBC's beautiful campuses are woefully underutilized. We need to capitalize on being the only brick and mortar higher education institution in our geographic areas, support place-bound students and market to students in urban areas and out-

of-state students who are interested in studying in a rural setting with a plethora of outdoor recreational opportunities.

The committee recommends GBC promote and support low-enrollment, in-person gateway courses to increase FTE and revive the traditional college experience in rural Nevada - doing so will increase students' sense of belonging.

## Programs and Enrollment Moving Forward

### Rotate Leadership

In concert with campus revival recommendations, those programs with stagnant or decreasing enrollment should consider leadership changes at the department chair and/or program supervisor levels to allow for much needed breaks and fresh ideas. Rotating leadership opportunities encourages early to mid-career faculty to garner leadership experience and a broader understanding of GBC's policies and procedures while working with faculty, staff and administrators from different academic disciplines.

### Pilot New-to-You Teaching Modalities

#### A GBC Case Study

Several departments like Science, Education and others incorporate the use of a variety of simultaneous teaching modalities. For example, the professor may offer an in-person lecture while using Zoom to reach **synchronous**, online students. The Zoom lecture can be recorded for use in an **asynchronous** online class. Laboratories meet in person at GBC campuses and are taught by a Part Time Instructor (PTI) at campuses other than the originating site.

### Preparation for 3-Year Bachelor Programs

GBC Departments who offer 4-year degrees should consider planning for the suspected Northwest Accreditation approval of the 3-year bachelor's degree program. Consider how bachelor's degrees can be restructured to be completed in a shorter time frame by incorporating 8-week courses in Fall, Spring and Summer Semesters and shorter classes during Winter Break. The Committee recognizes a compressed pathway to completion is not appropriate for all GBC courses or programs.

For those programs with fast-track pathways including summer classes, one of the biggest concerns is ensuring equitable pay, similar to summer pay granted to CTE and Nursing Faculty. Additionally, the administration could consider alternative contracts so some faculty in these programs can teach full time over the summer.

### Recruiting

Increased, campus-wide efforts in recruiting are paramount for promoting the benefits of an educated society in our region, and increasing GBC's enrollment, degree completions and sustainability.

Table 4: Short descriptions of general recommendations to move GBC forward and increase enrollment.

<b>Moving Forward Recommendations</b>
Initiate a voluntary orientation and/or create a college experience class
Offer a meeting for all GBC Program Supervisors to discuss successful strategies for declared majors to complete programs
Offer More Summer Courses
Attend PTA meetings at the school district to raise awareness for parents who are interested in returning to school
Rebranding to meet current language
Bilingual communication for recruiting, including financial aid information
Combine open advisement sessions
Increase scholarship awareness
Open Houses to include parents
In programs with decreasing or stagnant enrollment, consider voluntary leadership changes in departments and programs for fresh perspectives.
Rebuild relationship with the Elko County School District
Create a Dual Credit Academy
Efforts to create a more uplifting and welcoming campus climate (Improve sense of belonging and student life)
Encourage more in-person activities on all campuses to foster student life (Improve sense of belonging)
Increase communication between recruiters, departments, and program supervisors
Similar to summer course offerings, create a list of in-person course offerings for each campus.
Continued Professional Development for developing engaging and interactive online classes (Improve sense of belonging)
Continued Zoom programming of events for online students (Improve Sense of belonging)
Alternative scheduling (night classes, weekend offerings, alternating weeks)
Explore options for marketing to and recruiting urban and out-of-state students.



Explore how other Hispanic serving institutions recruit and serve their Hispanic communities.
Rotate leadership in stagnant or declining programs
Pilot 'new to you' teaching modalities

## Recommendations for Low-Yield programs

Listed below are comments and recommendations for GBC's low yield programs. The program-specific recommendations should be used in concert with general retention, completion, and campus revival recommendations shown in Tables 1, 2, 3, and 4.

### Associates of Science - Pattern of Study in Engineering and Physics

The pattern of study in Engineering and Physics was redeveloped in the last year to include a new engineering course (ENGR 100) and a dual enrollment pathway for a certificate of achievement. ENGR 100 increased Fall 2023 enrollment in both PHYS 181 and MATH 181. Starting Fall 2025, a new grant involving multiple institutions will allow lower division engineering courses to be taught as a shared service with community colleges in our state. Record high enrollments in PHYS 151 are promising.

- Encourage/recruit interested students in PHYS 151 to declare and complete the degree; and
- Collaborate with the Mining Center of Excellence to encourage double majors.

### Associates of Science - Pattern of Study in Geosciences

Robust enrollment in GEOL 101 generates considerable interest in this field but few students declare and complete the program. Although the number of declared majors shows an increasing trend, the small number of completers is concerning since this program was listed on previous low-yield reports. All courses within the program are included in the general education program and eliminating this program would not influence cost savings.

- Rename degree to Pattern of Study in Geology;
- Redevelop the program with stackable credits and focus on workforce development;
- Collaborate with the Mining Center of Excellence for shared coursework, programming, creating more specified electives, and encourage double majors;
- Determine if declared majors are meeting their educational goals at GBC and/or transferring to a four-year degree program in geology or related field;
- Encourage/recruit interested students in GEOL 101 to declare the degree and complete the degree; and
- Consider offering CHEM 121 in a hybrid format and collaborate with the MCE for in-person lab instructors in various communities.

## Associates of Applied Science - Computer Programming

In this rapidly changing field, it is important to provide timely and relevant courses, and GBC instructors are constantly moving forward by developing courses, such as, Python Programming and 'R' to generate interest and increase enrollment. This degree program meets exemption 'e' requirements by supporting underrepresented students. The Committee suspects due to the nature of this field, students might enroll and take only the courses they need for employment and not complete the degree.

- Create stackable credits to encourage students to complete degree requirements;
- Survey students at the end of each semester to determine if they plan to continue or if they've met their educational goals;
- Encourage instructors to communicate with current students to promote future coursework; and
- Explore potential cross-over with cyber security.

## Bachelor of Applied Science - Digital Information

Formerly, the multiple faculty and broader offering of courses contributed to the strength and attractiveness of the program. With two faculty retirements, the offering was pared back which had a negative impact on enrollment and graduation rates. Current faculty are actively participating in Cisco training, redesigning, and resuming upper-division courses that were withheld from the offering, and keeping GBC as the only institution in the NSHE system to offer all Cisco Certified Network Professional (CCNP) courses. Faculty are refining course content to make the BAS-DIT program more attractive and advantageous to students, focusing on career possibilities and attracting more AAS students to continue to the BAS program. Greater emphasis will be placed on software engineering and network administration with courses on Big Data, Data Science, and IoT, etc.

A straightforward adjustment to help boost enrollment and completions in this program is to provide clarity by:

- Renaming and rebranding the degree to BAS-Computer Systems Engineering or BAS-IT Systems Integration;
- Evaluate and/or consolidate courses for sustainability;
- Consider developing courses in AI;
- Survey students to evaluate how the courses are being used by students (have they met their educational goals or do they plan to continue in the program); and
- Evaluate if Continuing Education courses are competing with program-specific classes.

## Bachelor of Arts - Secondary Education

It is well known the State of Nevada is experiencing extreme teacher shortages (Nevada Advisory Committee to the U.S. Commission on Civil Rights, 2024, 7). This degree program is pivotal to our community and state and meets NSHE low yield exemption requirements involving: 1. Is central to the educational or research mission of the institution or partnering institutions vested in the program, 2. Meets a demonstrated workforce or service need of the

state or geographical region served by the institution, including projected future needs of the state or region (Nevada Advisory Committee to the U.S. Commission on Civil Rights, 2024), and 3. Supports underrepresented student or community groups.

Most courses within this high enrollment program are offered through other GBC programs such as Elementary Education and endorsement-specific courses in English, Social Sciences, Science, and Math. The Education Department suspects the Covid Pandemic derailed students' academic plans and relates to the low number of completers in the last few years. Additionally, some students transferred to less esteemed institutions so they can graduate more rapidly. Courses offered in this program are offered in both Elementary and Secondary Education programs. Although the program meets exemption requirements, the Committee asks the Education Department to consider the following recommendations:

- Create an Associate of Teaching in Secondary Education;
- Investigate the practicality of recruiting out-of-state students;
- Create pipeline from the Paraprofessional Certificate to the BA in Secondary Education;
- Recruit long-term substitute teachers;
- Provide open houses in GBC communities;
- Rebuild collaboration with the Elko County School District with a GBC liaison; and
- Follow-up with advisors about students' progress.

### Post-Baccalaureate Program Leading to Licensure - (Elementary Education and Secondary Education)

Similarly, to the Bachelors of Arts in Secondary Education, the Post-Baccalaureate Program Leading to Licensure (Post-Bac) helps contribute qualified, licensed teachers to our rural region. Nevada is experiencing a teacher shortage in our state with vacancies at 9.58% during the 2022-2023 school year (Nevada Advisory Committee to the U.S. Commission on Civil Rights, 2024, 7), most of the post-Bac students are hired as long term substitute teachers who then enter GBC's Alternative Route to Licensure (ARL) program. The Post-Baccalaureate Program is also used for students who struggle in the ARL program and provides more student teaching support. All courses taught in this program are also taught in the Bachelor of Arts - Elementary Education and Bachelors of Arts - Secondary education and eliminating this pathway would not have an impact on cost savings. Further investigation by the next GBC Institutional Researcher is encouraged.

### Bachelor of Applied Science - Management in Technology

This program was renamed Bachelor of Applied Science - Management Supervision in 2017.

### Bachelor of Applied Science - Instrumentation

With the recent surge of new companies within Industry and the expansion of Lithium mining, the opportunities for employment in this field is surging. Due to labor shortages, industry is decreasing their educational requirements and hiring students at competitive wages who have

only completed the Certificate of Achievement whereas, in the past, students needed to complete at least a two-year degree before hire. Many students who are hired following the Certificate or two-year degree completion, continue with the BAS - Instrumentation, but take only one or two classes at a time while working.

- Contact Certificate and two-year degree completers and encourage enrollment and completion of the BAS - Instrumentation;
- Fill CTE open faculty and lab aid positions to reduce workload on current faculty;
- Expand offerings to include robotics and automation;
- Find funding for additional lab aids; and
- Gradually build infrastructure at GBC campuses so faculty teaching in Elko can seamlessly support labs at other locations.

## Associate of Science - Land Surveying

GBC is currently exploring accreditation for Land Surveying. Accreditation would increase enrollment by improving credibility and acceptance with state licensure requirements. Although the Land Surveying program is thorough, students must make sure their states accept GBC's degree. Accreditation will eliminate the need for students to research state-specific licensing requirements.

- Pursue accreditation;
- Many students in this program likely completed graduation requirements. Track student cohort groups and encourage students to apply for graduation.

## Low-Yield Topics for Institutional Research Investigation

- Cost benefit analysis for low-yield programs.

## Glossary:

**Asynchronous:** An online class that does not have a meeting time with a professor. All course instructional materials are provided in WebCampus and/or through a publisher portal.

**BIPOC:** Black, Indigenous, People of Color

**BrianFuse:** GBC's 24-7 online tutoring service embedded in WebCampus and located in the left navigation bar in each course.

**DWFs:** the percentage of the total final letter grade (D), withdrawals (W), and the letter grade (F) in each course.

**DWFI:** the percentage of the total final letter grade (D), withdrawals (W), the letter grade (F), and the number of Incompletes (I) in each course

**Gateway courses:** required introductory courses which allow students to progress into their field of study.

**Sense of Belonging:** being a part of a community with faculty, staff and students who value the individual's contributions and participation.

**Synchronous:** An online course that meets through Zoom and has scheduled meeting time(s) with a professor.

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