



CENTRAL OREGON
community college

Mid-Cycle Self-Evaluation Report

Northwest Commission on Colleges and Universities

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Acronym Glossary

AAS: Associate of Applied Science

ABS: Adult Basic Skills

APR: Academic Program Review

AUR: Administrative Unit Review

CAP: Career Services, Academic Advising, and Personal Counseling

CBIPD: Center for Business, Industry, and Professional Development

CE: Community Education

CCSSE: Community College Survey of Student Engagement

COCC: Central Oregon Community College

CPAT: College Planning and Assessment Team

CTE: Career and Technical Education

DSP: Directed Self Placement

EIE: Evaluation of Institutional Effectiveness

ELL: English Language Learner

FYE: First Year Experience

GIS: Geographic Information Systems

IPEDS: Integrated Postsecondary Education Data System

ISI: Institutional Success Indicator

LOA: Learning Outcomes and Assessment

NWCCU: Northwest Commission on Colleges and Universities

PDP: Postsecondary Data Partnership

PSS: Peer Support Specialist

SENSE: Survey of Entering Student Engagement

SLT: Senior Leadership Team

Introduction

Founded in 1949 as part of the Bend-La Pine School District, Central Oregon Community College (COCC) is Oregon's oldest community college. The COCC District covers a 10,000-square-mile area, including all of Crook, Deschutes, and Jefferson Counties, as well as the southern part of Wasco County and the northern portion of Klamath County. A seven-member Board of Directors, elected from geographic zones, governs the College.

COCC educates students on its main campus in Bend and three centers in Madras, Prineville, and Redmond. COCC also contracts with the Oregon Department of Corrections to provide basic skills instruction, some college-level courses, and limited training at the Deer Ridge Correctional Institution in Madras. Across its campuses, COCC currently employs 115 full-time faculty members, 40 adjunct faculty (those working more than half-time, but less than full-time), and over 200 part-time instructors for credit classes. COCC faculty are required to have at least a master's degree in their field or equivalent industry training with a strong emphasis on practical workplace skills. Many full-time faculty members have doctorates in their disciplines or a terminal degree/licensure in their fields. The College also employs 107 classified staff and 119 administrators, all working to help the College achieve its mission.

In addition to traditional credit transfer and career and technical education (CTE) programs, COCC offers non-credit courses or programs relating to English Language Learners (ELL), Adult Basic Skills (ABS), Community Education (CE) and the Center for Business, Industry, and Professional Development (CBIPD), as well as dual-credit classes for in-district high school students.

Section 1: Mission Fulfillment

COCC's approach to mission fulfillment has evolved over the past twelve years as its approach to assessment has become more intentional and systematic. The College adopted NWCCU "core themes" guidance in 2010 and established the core themes of transfer, workforce development, basic skills, and lifelong learning. In 2017-18, the College began development of its current strategic plan, guided by its mission and vision statements. Through this work, it became clear that faculty and staff found more meaning in those statements than in the core themes. COCC determined that by focusing on the two main elements of its mission—student success and community enrichment—it would have the ability to make a greater impact on achieving that mission. As a result, the College adopted [Institutional Success Indicators](#) (ISIs) related to student success and community enrichment to guide its mission fulfillment work and inform its [strategic plan](#).

COCC's College Planning and Assessment Team (CPAT) was charged with developing the ISIs. CPAT membership included two Senior Leadership Team (SLT) members, the director of institutional effectiveness, and ten additional faculty and staff from across the College. The ISIs related to student success were reviewed by the SLT, shared with the College in a variety of formats, and approved by the COCC Board of Directors in 2019. ISIs related to community enrichment were approved by the Board in spring 2020, refined during the 2021-22 academic year, and rolled out to the Board and College community in fall 2022.

Prior to the ISI work, CPAT led the development of the College's [2018-23 Strategic Plan](#). In doing so, CPAT engaged more than 200 faculty and staff from across the College as well as the COCC Board of Directors. The strategic plan includes four goal areas: student success, student experience, community enrichment, and institutional efficiency. Each of the strategic plan goal areas has established metrics and benchmarks to track progress. The student success and community enrichment ISIs and student success and community enrichment strategic plan goals share many of the same benchmarks. This, in turn, allows strategic plan activities to directly influence achievement of ISI goals. Each year, the College allocates \$100,000 towards activities that advance achievement of strategic plan goals; any College employee can submit a proposal for such an activity.

CPAT's charge was to lead development of the College's ISIs and 2018-23 Strategic Plan, as well as build assessment practices throughout the institution's academic programs and administrative units. As this assessment work became embedded within the College's organizational structure, CPAT disbanded and two strategic plan-related teams were developed: one to manage the 2018-23 Strategic Plan and a second to develop the College's new strategic plan. The new Strategic Plan Steering Team's work includes potential revisions to the College's mission, vision, values, and goals. This plan is slated to be completed by spring 2023, with strategic plan assessment indicators—and any corresponding updates to ISIs—developed in summer 2023.

Institutional Success Indicators

COCC's ISIs are established to measure mission fulfillment related to student success and community enrichment, which are the two main elements of the College's mission statement:

Central Oregon Community College promotes student success and community enrichment by providing quality, accessible, lifelong educational opportunities.

Each of the two mission elements has three ISI components:

- Institutional Success Area: high-level topic within each mission element
- Indicator: specific and measurable action or activity; derived from the institutional success area
- Goal: specific target associated with the indicator

Table 1 summarizes the institutional success areas and indicators connected with the two mission elements. Specific definitions and measurable goals associated with each indicator, as well as annual assessment of progress toward goals, are located on the COCC website's [Institutional Success](#) page.

Table 1: Institutional Success Indicators

Mission Element	Institutional Success Area	Indicators
Student Success	Staying Enrolled	<ul style="list-style-type: none"> • First- to second-term retention • Fall-to-fall retention
	Passing Gateway Courses	<ul style="list-style-type: none"> • Passing college-level math in first year • Passing college-level writing in first year
	Achieving Success	<ul style="list-style-type: none"> • Graduation rates • Transfer rates
Community Enrichment	Educational Partnerships	<ul style="list-style-type: none"> • High school students taking credit courses • High school students taking credit courses and matriculating to COCC • COCC students dually enrolled with OSU-Cascades
	Business and Industry Connections	<ul style="list-style-type: none"> • Maintain healthy CTE advisory boards • Workplace experiences
	Lifelong Engagement	<ul style="list-style-type: none"> • Number of College-sponsored events offered • Participation in College-sponsored events • Continuing Education¹ repeat rates • Continuing Education new students • Total value of COCC Foundation scholarships and other awards

Assessing Institutional Success Indicators

To ensure that the ISIs maintain relevance, each indicator has a primary “owner(s)” responsible for monitoring, understanding, and championing the indicator. For example, the vice president for student affairs, director of admissions/registrar, and director of CAP (career, advising, personal counseling) services share ownership of the “COCC students dually enrolled with OSU-Cascades” indicator, and the director of the COCC Foundation owns the “Total value of COCC Foundation scholarships and other awards” indicator. The owners review progress and set goals based on internal data, available information from peer institutions, and national best practices. The Office of Institutional Effectiveness works with each of the indicator owners to update indicators annually, with specific dates based on availability of key data. This information is then tracked on the College’s [ISI Dashboard](#). The College has begun sharing ISI

¹ Since the indicators were established, Continuing Education has been operationally split into Community Education and the Center for Business, Industry, and Professional Development; however, these indicators are still tracked for the combination of the two areas.

updates with employees at all-College meetings and in various committees, as well as with the COCC Board of Directors on an annual basis.

Defining Mission Fulfillment

COCC defines “mission fulfillment” as meeting or exceeding the indicator goals or having a plan in place to address any areas where the College is not meeting those goals. Mission fulfillment at COCC requires regular and ongoing examination of the ISIs by the Board of Directors, SLT, and those with primary responsibility for each indicator.

Currently, the College has met or almost met its goals for twelve of the fourteen indicators. The two for which it did not meet its goals—“High school students taking credit courses and matriculating to COCC” and “COCC students dually enrolled with OSU-Cascades”—were those areas most significantly impacted by the pandemic. Regardless, the College is developing plans to ensure progress towards the established goals. For dual credit, the College hired a manager for high school partnerships who has been steadily working to rebuild relationships with local high schools and create new ones. In relation to dually enrolled students with OSU-Cascades, COCC is increasing its partnership as the university’s leadership stabilizes, beginning with a review of its memorandum of understanding and efforts from the Student Affairs division to set up ongoing meetings of staff from the two institutions.

Section 2: Student Achievement

Methods for Measuring Student Achievement

Central Oregon Community College measures student achievement in a variety of ways. At the institutional level, ISIs include metrics on retention, passing gateway courses, graduation rates, and transfer rates. Progress in these metrics is discussed later in this section. The College also employs [Academic Program Review](#) (APR) and [Administrative Unit Review](#) (AUR) processes as a means of assessing academic programs and administrative departments. The AUR process requires departments to address how they contribute to the College’s student success and community enrichment mission; share their departmental purpose, strengths, and challenges; and identify outcomes, measurement tools, and timelines. It also includes an annual report in which departments assess data and delineate progress towards outcomes and next steps.

A robust student achievement-focused data set anchors the APR process. Disciplines evaluate student success in their courses and compare that to COCC’s overall student success rate. They also review student success rates for various student demographics and course delivery methods and strategize around addressing achievement gaps. Over the last few years, the instructional administration and the Office of Institutional Effectiveness developed dashboards to provide regular access to data disaggregated by student attributes (race, ethnicity, gender, age, financial need, city of residence, veteran status, full-time/part-time status) and course attributes (course delivery method and campus). Instructional leadership regularly reviews and refines these dashboards and deans work with academic department chairs to analyze and discuss metrics. This work is shared with faculty members, who then use data for their own classes for continuous improvement in student success across all demographics.

Comparator Institutions

Oregon's community colleges are independent institutions and, as a result, limited data exists at the state level to adequately identify peer institutions. Therefore, COCC used the Integrated Postsecondary Education Data System (IPEDS) to identify twelve potential peer institutions in fall 2022. The SLT identified several characteristics that would be of the most value in selecting peer institutions, including factors such as institutional size, program mix, budget, and rural/urban status. From this, COCC narrowed the list to the following institutions: Gavilan College, Gilroy, CA; Gulf Coast State College, Panama City, FL; Hawkeye Community College, Waterloo, IA; Iowa Western Community College, Council Bluffs, IA; and Linn-Benton Community College, Albany, OR. The College will begin to establish data-sharing relationships with each of these peers in order to compare and analyze its own metrics, especially those associated with ISIs.

Student Achievement: Institutional-Level Data

Many of the College's ISIs focus on measurements of student success, such as persistence, completion, and retention. Analysis of these achievement indicators has informed several College initiatives over the last few years and will continue to do so.

COCC's fall-to-fall retention rate has improved from 46.1% for the fall 2017 cohort to 51% for the fall 2021 cohort. Retention of students of color has grown even more dramatically over the same period, from 40.3% to 53.4%. However, the College still sees some equity gaps in first-to-second-term retention, though those gaps have narrowed slightly: while the student population as a whole has seen an increase from 78.1% to 79.8%, that growth for students of color has been from 72.8% to 75.4%. This data served as the impetus for the College to begin its Guided Pathways planning in earnest in fall 2022. To support this work, COCC formed four work groups to focus on the student experience from the start of the first term through completion. The focuses of these work groups include academic advising and long-term planning, how and when to build stronger connections throughout the student lifecycle, first-term course scheduling, and recruitment/admissions activities – all with the goal of ultimately impacting retention and completion.

Similar data prompted the College to devote a significant portion of its former Title III grant to placement and developmental education. In fall 2017, shortly after the initial implementation of Title III grant activities, 26.9% of students passed college-level math in their first year, and 42.1% passed college-level writing. As of fall 2021, those numbers have grown to 33.5% and 46.0% respectively. Students of color have also seen significant growth in these areas, though their pass rates remain lower (increasing from 22.8% to 29.3% for math and from 36.4% to 39.8% for writing).

Overall, every student success ISI met its 2021-22 goal, though that was not always the case when examining disaggregated data. The information in this section is summarized in Table 2. [Disaggregated data](#) is available on COCC's intranet.

Table 2: Student Success Indicator Achievement

Indicator	Fall 2017 Cohort: All Students	Fall 2017 Cohort: Students of Color	Fall 2021 Cohort: All Students	Fall 2021 Cohort: Students of Color	Fall 2021 Cohort Goal
First-to-second-term Retention	78.1%	72.8%	79.8%	75.4%	79.6%
Fall-to-fall Retention	46.1%	40.3%	51.0%	53.4%	50.3%
Passing College-Level Math in First Year	26.6%	22.8%	33.5%	29.3%	31.2%
Passing College-Level Writing in First Year	42.1%	36.4%	46.0%	39.8%	45.5%
Graduation Rates (for cohort three years prior)	19.9%	26.9%	22.5%	19.5%	22.3%
Transfer Rates (for cohort three years prior)	20.9%	25.6%	23.5%	22.1%	22.5%

Student Achievement Examples: Underserved Communities

While disaggregated student achievement data informs institutional offerings in a variety of ways, this report highlights specific programs coordinated by three COCC areas: the Office of Diversity and Inclusion, the Health and Human Performance department, and the Center for Business, Industry, and Professional Development.

COCC has well-established programs for developing a college-going culture among Central Oregon's Latinx and Native American high school students, and in 2021, the College expanded this outreach to Afro-centric high school students. [iAVANZA!](#), [The Good Road](#), and [L.E.A.D.](#) encourage Latinx, Native American, and Afro-centric students to develop college preparation skills and build cultural pride within the high school setting. Parallel summer residential programs [GANAS](#), [STRIVE](#), and [Ubuntu](#) bring students to COCC's Bend campus to experience instruction from College professors and to further develop their interests in careers and college achievement. Of the students who have participated in these programs, 100% graduated from high school, with an average of 89% of those students continuing to higher education.

To best respond to data regarding student access to programs for rural communities, the College recently added two programs that bring much-needed public health services to Central Oregon. The Community Health Worker course prepares students to become advocates for community health needs, help patients access community resources and navigate the health care system, and convey essential health knowledge with cultural competency and trauma-informed communication skills. As of fall 2022, 76 students have completed this training, a 98% completion rate. The Peer Support Specialist (PSS) course prepares students for working with individuals experiencing drug addiction or mental health issues and helping connect these individuals with needed support services. PSSs have shared lived experiences with the individuals they serve.

COCC has also done significant work to serve the childcare needs in its communities, with an emphasis on rural communities and Spanish-speaking child care providers. The Center for Business, Industry, and Professional Development (CBIPD) created an [Early Child Care Business Accelerator Program](#) for home-based providers with offerings in both Spanish and English. The grant-funded program includes business coursework and advising. Participants who complete the program are eligible to earn college credit and a \$5,000 business start-up grant. To date, CBIPD has seen 43 students complete the program and has awarded \$130,000 in start-up grants. This program has served as a bridge to the Early Childhood Education certificate and degree pathways, which also provide instruction in both Spanish and English and cater to the needs of working adults by offering coursework in evenings and on weekends.

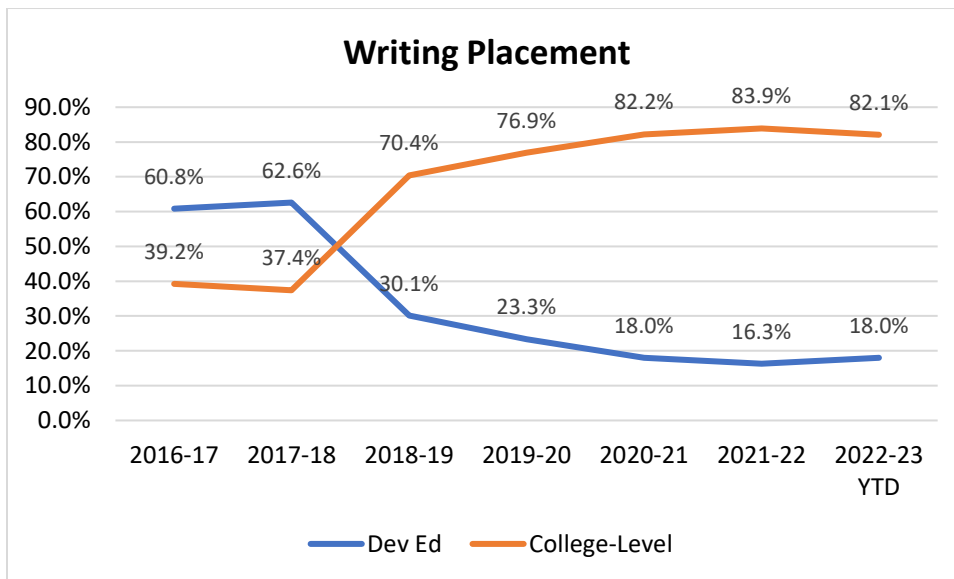
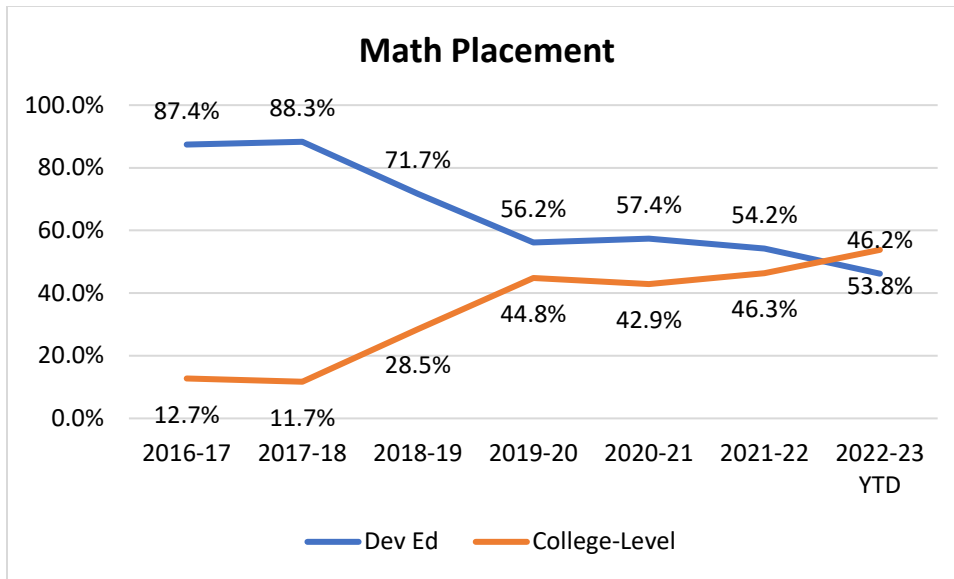
Student Achievement Examples: Title III Work

In a major effort to address achievement gaps among first-year students, the College recently completed a five-year period of intensive work on revising placement practices, updating developmental education, and establishing a first-year experience program. Supported by a \$2.5 million Title III Strengthening Institutions grant from 2016 to 2021, the work has resulted in several major successes:

- multiple measures placement that places students more accurately into writing and math classes;
- shortened developmental education sequences so that students move more quickly to completion of college-level courses; and
- a strong program for first-year students, including orientations and college success courses, that helps students understand and feel comfortable navigating college processes and culture.

This work has had lasting impact on student success at COCC. Since the grant's initial implementation, college-level math placements grew from 12.7% to 53.8% and college-level writing placements increased from 39.2% to 82.1% (Table 3). These changes, combined with decreases in the number of courses in the developmental sequences, have shortened the time it takes for students to successfully complete first-year math and writing requirements. Over the course of the grant, students "saved" 1,840 credits in math classes and approximately \$88,000 in tuition and fees for writing courses. The results of COCC's first-year experience (FYE) program are also impressive: students who completed all FYE requirements were retained at higher rates and had lower academic warning rates and higher course completion rates than their peers who did not complete requirements.

Table 3: Placement Levels for Math and Writing



Student Achievement Data: Looking Ahead

The College’s new strategic plan and any corresponding changes to ISIs will be finalized in spring 2023. Following suit, assessment indicators—based on peer institution data where possible—will be identified in summer 2023, with assessment work beginning shortly thereafter. While the College hopes to use IPEDS data for this purpose, it will also look to other national data sources such as the Community College Survey of Student Engagement (CCSSE), Survey of Entering Student Engagement (SENSE), and potentially the Postsecondary Data Partnership (PDP). In addition, the College will work to develop inter-institutional data sharing agreements as needed to accurately assess its ISIs and related student achievement indicators.

COCC has also made it a priority to disaggregate its ISIs by a variety of student demographics including race/ethnicity, age, gender, veteran status, financial need, and geographic location, where such information is applicable to the indicator. At the time of this writing, the disaggregation of appropriate ISI data related to community enrichment is in progress, though not all community enrichment ISIs are student-based (e.g., total value of COCC Foundation scholarships). Due to FERPA concerns, this more nuanced data is not shared on public webpages, but rather in a secure environment accessible to approximately 100 employees in leadership and decision-making roles. This same disaggregation of data will continue as the College develops its new strategic plan and grows its work in using comparator institution data. The evaluators are encouraged to ask for updates on this work when on site in the spring.

Section 3: Programmatic Assessment

Since its April 2020 Evaluation of Institutional Effectiveness accreditation visit, the College has refined and systematized its ongoing program review and assessment practices. COCC has completed the first round of [Academic Program Review](#) (APR) for all disciplines and has begun the next cycle of reviews. The College has also progressed in its three-part assessment practice for general education courses (Plan, Analyze, Close the Loop), completing those assessment cycles for the [foundational requirements and discipline studies courses](#) that were offered during this time. Declining enrollment and pandemic conditions have resulted in the cancellation of a number of courses, so that not all discipline studies courses have had the opportunity to complete their cycles and some have not started. As a whole, however, disciplines have moved steadily forward in implementing continuous improvement practices, with 93% of the courses on those lists as of 2021-22 having completed their assessment cycles. Faculty are continuing to review their discipline studies courses in order to determine which should remain on those lists, particularly in light of the frequency the courses are offered.

Two disciplines that illustrate effective use of the APR process as well as assessment of student learning are Math and Geographic Information Systems. Math has completed two APR cycles and engages all faculty in a robust assessment practice. Geographic Information Systems exemplifies efforts within career and technical education (CTE) to map program learning outcomes through all coursework to show where and how students progress in their learning.

Math

COCC's Math department has engaged in continuous improvement through a variety of established methods, including APR and general education outcomes review and assessment, as well as through participation in grants such as Title III Strengthening Institutions and a Strong Start Oregon grant supporting the creation of corequisite math courses.

The Math department participated in COCC's APR pilot cohort in 2016-17. This self-study culminated in the development of several goals for the following five years, including:

- improvement of technological resources inside and outside of the classroom;
- continued development of collaborations with curriculum stakeholders;
- improvement of math placement and advising; and
- curricular adjustments to improve student success.

One result of the first listed goal is that the department applied for and received strategic plan funding for calculator sets at COCC's centers in order to remove barriers for low-income and rural students. A primary activity related to the second goal was work with CTE programs on [related instruction](#) computation courses. As a result of this work, the department eliminated MTH 085 and 086 (Technical Mathematics I and II), replacing them with MTH 102 (Applied Technical Mathematics). Math department faculty were also heavily involved in the creation of new related instruction courses outside of the discipline, in some cases co-teaching the courses with faculty in those CTE programs. The third and fourth goals were approached through COCC's Title III grant, and this work is detailed later in this section.

The discipline of Mathematics contains several courses that are on COCC's foundational requirements and/or discipline studies [general education](#) lists and, as such, its faculty have been frequent and ongoing participants in general education outcomes assessment. Many course-level improvements have resulted from this assessment work, including:

- a major revision in how spreadsheets were introduced and utilized in MTH 105 (Math in Society), resulting in greater student comfort with these tools and increased success on a financial analysis project;
- an increased emphasis on practicing translating verbal descriptions to diagrams and considering reasonableness of results in MTH 112 (Trigonometry), resulting in a narrower range of errors and improved performance on a final exam application problem; and
- an increased focus on considering units in falling-body problems in MTH 252 (Calculus II), resulting in improved performance on a final exam application problem.

In all cases noted above, "performance" refers to the student's mastery of general education mathematics outcomes in the given artifact, rather than their grade on the artifact itself.

As a result of COCC's analysis of developmental education completion rates, Title III work in mathematics focused on three areas: creation of a developmental course pathway focusing on quantitative reasoning rather than algebra, revision of the developmental algebra pathway, and revision of the math placement procedure. The ultimate outcome of the work in the first area was the development of MTH 098 (Math Literacy), designed to prepare students with basic math skills for the college-level non-STEM math course, MTH 105. The Title III team's analysis found that students who took MTH 098 prior to MTH 105 were more successful, as shown in Table 4.

Table 4: Student Success MTH 105

MTH 105 Student Group	MTH 105 Success Rate
Took MTH 098, fall 2018 through summer 2020	87%
Took MTH 095 instead of MTH 098, fall 2018 through summer 2020	66%
Placed into MTH 105	70%

The revision of the developmental algebra sequence culminated in the elimination of one course, MTH 065 (Beginning Algebra II) and major revision of the following course, MTH 095

(Intermediate Algebra). This was done in order to shorten the pathway to MTH 111 (College Algebra) while maintaining student success. Similar to the quantitative reasoning pathway work, these adjustments resulted in increased success in the college-level course, as shown in Table 5 below.

Table 5: Student Success MTH 111

MTH 111 Student Group	MTH 111 Success Rate
Took “new” MTH 095, fall 2020 through winter 2021	85%
Took “old” MTH 095, 2014-2015 through 2019-2020	80%
Placed into MTH 111	60%

Finally, the Accuplacer exam-based model for math placement was replaced by a multiple-measures model called Directed Self-Placement (DSP). In the DSP pilot, 85% of students placed one or more levels higher through DSP than through Accuplacer, and the course success rate for the pilot students as a whole was 79.4%, compared to a success rate of 66.5% from the Accuplacer validation study a few years prior. Analysis in subsequent terms with larger cohorts found lower success rates, and updates were made to the DSP logic. As a result, the percentage of incoming students placing into college-level math increased from 12.7% in 2016-17 to 46.3% in 2021-22, with little impact on college-level course success rates.

A recent project in the Math department has been the development of a corequisite support course for MTH 111, via participation in Oregon’s second Strong Start grant cohort, which supports the creation of corequisite courses for the gateway math courses MTH 105, MTH 111, and MTH 243. The math department chose this course to begin its corequisite work due to this course having the largest equity gaps (Table 6), as well as the lowest overall course success. Shown in the table below are student success rates in the gateway courses over the period from summer 2017 through spring 2020. The corequisite pilot is currently underway.

Table 6: Success Rates in Math, Disaggregated

Student Ethnicity	MTH 105 Success Rate	MTH 111 Success Rate	MTH 243 Success Rate
American Indian/Native Alaskan	81%	51%	79%
Asian	76%	51%	86%
Black/African American	71%	50%	90%
Latinx	70%	56%	76%
Hawaiian Native/Pacific Islander	67%	61%	81%
White	84%	63%	80%

Geographic Information Systems

COCC’s Geographic Information Systems (GIS) program has also taken deliberate steps to systematize and align its assessment practices, using program-level assessment of student learning and regular academic program review.

Assessment has evolved in GIS over the last six years. Between 2017 and 2019, the GIS faculty conducted a direct assessment project in the GIS Capstone (GEOG 275) course, in which three groups—instructors, advisory board members, and fellow students—evaluated projects completed for the course. Student learning was measured at the level of “competent” or “mastery” for all outcomes, except for two sub-measures that reflected minor concerns. While students met program outcomes during that time, the program director indicated that change was needed in teaching strategy to emphasize skills progression throughout the program.

In 2021, GIS completed its first Academic Program Review, in which faculty noted the need to revise course- and program-level outcomes to increase measurability, reduce redundancy, and reduce the overall number of outcomes for each course. The program director worked with the director of assessment and curriculum to revise all outcomes, embed the one-year certificate outcomes within the Associate of Applied Science (AAS) degree, and align the courses and programs to show the progression of learning throughout the program.

In addition to updating course outcomes, the program director completed an outcomes map (Table 7) to indicate the courses (labeled by column) and terms (noted by differently shaded sets of columns) in which specific program-level outcomes are introduced (I), reinforced (R), and where proficiency in the outcome is measured (M) through systematic assessment (N indicates that the outcome is not addressed in the course).

Table 7: Program map for Geographic Information Systems Associate of Applied Science

GIS AAS		TERM 1					TERM 2				TERM 3		4	
		AV 271	GEOG 101	GEOG 265	GEOG 266	GEOG 273	CIS 122	GEOG 211	GEOG 285	GEOG 287	GEOG 267	GEOG 286	GEOG 275	GEOG 280
Program Learning Outcomes														
1	Apply foundational theories of geospatial science to real-world industry applications.	I	I	R	R	I	N	R	R	M	R	R	M	N
2	Use industry-standard GIS software proficiently.	N	I	I	R	I	N	I	R	M	R	R	M	N
3	Explain geospatial ideas and outcomes to stakeholders, including non-professionals.	I	I	I	N	N	N	R	M	R	N	N	M	N
4	Create procedures for using GIS and modeling data.	N	I	I	R	R	N	R	M	R	R	R	M	N
5	Use cartographic design principles to communicate effectively with maps.	N	I	R	R	N	N	M	R	R	N	R	M	N

In its APR, the GIS program also aligned its efforts with the Academic Master Plan and the College's strategic plan. The program set a broad goal of focusing on access, student diversity, and broadening of program offerings, including the following specific goals:

- make GIS technology available to any student interested in taking a GIS course or pursuing a GIS-related program;
- ensure the GIS program allows seamless transfer to other educational programs at four-year colleges;
- attract a GIS student base similar in gender and race/ethnicity to that of incoming, exploratory students; and
- provide scholarships to cover financial needs.

In its data analysis, the program found that its students were disproportionately white, male, and in their mid-twenties or older relative to the makeup of the overall COCC student population. The program immediately began plans to recruit and retain more women and students of color. They determined a need to increase accessibility and offer scholarships to low-income students. Over the next year, the program sought and received a National Science Foundation grant with the specific goal of increasing the number of students of color seeking the degree. They also launched a program to provide loaner laptops loaded with appropriate GIS software and piloted the use of cloud-based software, thereby reducing the technology challenges experienced by many students in rural locations. In addition to those described above, program faculty have recently made other changes in order to increase accessibility for students and address equity gaps, including:

- adopting or creating Open Educational Resources in order to reduce textbook costs for all students;
- providing more courses in an online format;
- creating new AS degrees to attract younger students and to ensure courses from the program are transferrable to four-year colleges; and
- creating a new foundations course (GEOG 101) designed to introduce exploratory students and those curious about mapping technology to geospatial science and GIS.

Analysis of the effects of these changes is ongoing.

Section 4: Moving Forward

As the College prepares for its Year Seven Evaluation of Institutional Effectiveness Report, it has taken a number of steps in its continuous improvement efforts. As noted earlier, this includes identifying comparator colleges that will serve as touchpoints for developing achievement benchmarks as well as setting aspirational goals for future work. COCC is also considering joining the [Postsecondary Data Partnership](#).

COCC is developing a new strategic plan, even as it finishes out the final year of its current strategic plan. This process has included broad outreach to members of the College's service district in listening sessions on all campuses and in video chat, an all-staff idea-gathering session in September 2022 and a survey of students. A cross-sectional team of administrators, faculty and classified staff is distilling the ideas collected and developing a draft plan that will be

shared with the COCC Board of Directors, COCC employees and the Central Oregon community for comment in spring 2023. Final edits will be presented to the COCC Board of Directors for final review and approval, with the approved plan guiding the College's focus for the next five years. When that approval is given, College divisions will update their master plans and the College will revise its Academic Program Review and Administrative Unit Review processes, all with the goal of aligning with the new plan and ensuring that the work leads to meaningful improvement.

Finally, the College has begun work on developing a Guided Pathways framework as a means of improving student success, not just for underrepresented populations but for all populations. Research and information-gathering that began in 2020 has now shifted into planning for how the College can reshape support services and develop academic pathways for greater student achievement.

Addendums

The Northwest Commission on Colleges and Universities asked the College to address Recommendations 1 and 2 in its Mid-Cycle Report.

Recommendation 1 - The Evaluation Team recommends that the institution set and articulate meaningful objectives and indicators of its Community Enrichment goal to define mission fulfillment, and to improve its effectiveness in the context of and in comparison with regional and national peer institutions. (1.B.2)

Recommendation 2: Refine its current practices to create an effective system of evaluation that systematically (integrated across all levels of course, program, and general education) assesses student learning outcomes to ensure currency and improvement of teaching, learning and student success (2020 Standard 1.B.1, 1.C.5, 1.C.6, 1.C.7).

Recommendation 1

COCC's mission statement is "Central Oregon Community College promotes student success and community enrichment by providing quality, accessible, lifelong educational opportunities." In 2019, as a means of measuring COCC's progress towards fulfilling its mission, the College adopted Institutional Success Indicators, or ISIs, which focus on the two main elements of its mission, student success and community enrichment. The College developed ISIs related to the student success mission element in fall 2019, prior to the April 2020 Evaluation of Institutional Effectiveness (EIE) accreditation visit, and the community enrichment mission element post-visit, during the 2021-22 academic year. Both sets of ISIs were approved by the COCC Board of Directors.

Each ISI has three primary components:

- Institutional Success Area: high-level topic within each mission element
- Indicator: specific and measurable action or activity; derived from the institutional success area
- Goal: specific target associated with the indicator

Departments with primary leadership for activities associated with each indicator and goal were responsible for proposing indicators and setting goals, and they monitor and champion the indicator and goal on an ongoing basis. Typically, departments recommended indicators and goals based on historical data trends, awareness of internal and external influences, and best practices. The indicators and goals were then vetted and approved by the College's Senior Leadership Team. As part of their annual data review, departments may also adjust the goal based on changing internal and external factors. See the [Institutional Success Indicators](#) section of the Mid-Cycle Report for further details on ISIs.

The following community enrichment indicators and their associated goals were rolled out to the College in fall 2022.

Table 8: ISIs and Goals for Community Enrichment

Institutional Success Area	Indicator	5-Year Goal
Educational Partnerships	High school students taking credit courses	1,500 students
	High school students taking credit courses and matriculating to COCC	32.1%
	COCC students dually enrolled with OSU-Cascades	19.4%
Business and Industry Connections	Maintain healthy CTE advisory boards	100%
	Workplace experience participation	7.5-8%
Lifelong Engagement	Number of College-sponsored events offered	45 annually
	Participation in College-sponsored events	2,200 participants
	Continuing Education repeat rates	20%
	Continuing Education new students	60-65%
	Total value of COCC Foundation scholarships and other awards	\$1.5 million

Please see COCC's [Institutional Success](#) and [Institutional Success Definitions](#) webpages for additional information, including definitions for each of the indicators as well as progress towards indicator goals.

During winter and spring 2023, COCC will determine what data is available from existing data sources (e.g., IPEDS, CCSSE, SENSE, and others), as well as explore inter-institutional data exchange agreements with its newly identified peer institutions (as discussed in the Mid-Cycle Report, Section 2: [Student Achievement](#)). Information from this work will be used to evaluate COCC's ISI goals, refining them as needed to identify both realistic and aspirational benchmarks. The evaluators are encouraged to ask for updates regarding this work when on site in the spring.

Recommendation 2

Since its EIE accreditation visit in 2020, COCC has worked to refine how it effectively and continuously evaluates achievement of student learning outcomes across all levels. Two major assessment efforts at COCC that are relevant to the content of this recommendation have recently ended their first five-year cycles: [Academic Program Review \(APR\)](#) and a systematic general education and program outcome [assessment process](#).

Academic Program Review

APR is a comprehensive self-study undertaken at the discipline level. Its purposes are as follows:

- give academic disciplines an opportunity to conduct a self-study of topics related to the enhancement of student learning including documenting what is working, what can be improved, and specific plans for implementing improvements;
- provide a forum for each discipline's findings to be communicated to COCC instructional administration in order to celebrate successes and jointly explore ways to address recommended improvements;
- inform the College community about a program or discipline; and
- collect information that will contribute to institutional planning, assessment and improvement.

The APR process was piloted in 2016-17, with all disciplines participating on a five-year rotation; the second cohort is currently undergoing their second review. Though APR has always required disciplines to address learning outcomes and assessment practices, this area of reporting has been refined considerably since the pilot year.

When the College began this practice, disciplines were asked to provide the percentage of courses with defined student learning outcomes, assess the quality and usefulness of those outcomes, describe their methodology for course-level outcome assessment, and identify goals for improvement if applicable. Disciplines with associated career and technical education (CTE) programs were asked to perform those tasks with respect to their program-level outcomes, as well as to identify and give examples of changes made to improve students' attainment of those outcomes. Transfer disciplines—those without associated CTE programs—were not required to address general education outcomes, though some disciplines chose to address those in the APR section dedicated to program outcomes.

Six years later, disciplines are now asked to review their course-level outcomes for currency and measurability, reflect on them in light of statewide work around [Major Transfer Maps](#) and [common course numbering](#), indicate a plan for revision if needed, and provide multiple examples of how instruction has been adjusted in response to outcomes assessment to improve student learning. Disciplines with CTE or Adult Basic Skills (ABS) programs are asked to do those same things at the program level, while those with courses on the general education lists (foundational skills or discipline studies) must describe their general education outcome assessment methodology as well as describe several teaching adjustments made in specific courses as a result of general education assessment.

Instructional Assessment

COCC's current methodology for [instructional assessment](#) was piloted in 2017-18. All program outcomes associated with ABS programs and CTE certificates and degrees—as well as general education outcomes associated with courses required for transfer degrees—are assessed and reported on a five-year schedule, in coordination with APR and specialized accreditation. Program-level outcomes for CTE programs are developed and assessed by faculty in the discipline and are influenced by input from employers on their advisory committees,

requirements of specific accrediting agencies, recommendations of professional organizations, and collaboration with colleagues at other colleges in the region. General education outcomes for transfer degrees are assessed by faculty for each course on the foundational skills or discipline studies lists.

Through 2021-22, general education assessment has been done using outcomes established at the state level in 2009. In early 2022, COCC began a faculty-led process of re-examining those general education outcomes and proposing edits to improve measurability. By October 2022, faculty in each general education area reached consensus on revised outcomes and, after consulting with the Oregon Higher Education Coordinating Commission and COCC's primary university partners, those were approved by the Academic Affairs Committee the following month.

Until the current academic year, program-level assessment has been a fairly manual process. Assessment Plan reports (both [CTE](#) and [General Education](#)) were submitted as Word documents to the director of assessment and curriculum and reviewed by the applicable department chair, dean, and faculty from the [Learning Outcomes and Assessment \(LOA\) Committee](#) using an evaluation rubric, with feedback provided to the proposer(s). In later stages of the assessment process, Analyze and Closing the Loop reports were also reviewed by LOA and proposers were given feedback via rubrics.

The LOA Committee consists of seven faculty members who represent both transfer/general education and CTE disciplines as well as the director of assessment and curriculum. LOA uses the annual review of credit assessment projects to improve the overall instructional assessment process each year. The LOA Committee helped develop the assessment forms and system that have been used for the past five years and are the basis for COCC's current assessment process. LOA also organizes COCC's annual Assessment Day, a day dedicated to supporting faculty conducting assessment and providing time for collaboration and planning. Exemplary program-level assessment projects are recognized annually at Assessment Day and [posted](#) on COCC's intranet.

The first five-year assessment cycle ended in 2021-22, providing the opportunity to reflect on progress and make more significant changes. As of fall 2022, reporting is done in two steps: Plan and Report, where the latter is a combination of the previous Analyze and Closing the Loop steps. This streamlining now allows assessment projects to be completed in a single academic year, where the three-part process took almost two years and meant that improvements to student learning were slow to be implemented. These reports are submitted electronically using an online submission tool; this digitized reporting sets the College up for longitudinal analysis as it moves into its second five-year cycle. The revised assessment cycle is shown visually in Figure 1. The six stages noted in this graphic represent the cyclical process used by faculty, which has not changed over time despite the recent shift from a three-part to a two-part reporting system. Early reporting happens at the "Submit Assessment Plan" and the analysis and adjustments are reported at the "Submit Assessment Report" stage.

Figure 1: Assessment Cycle at COCC



In addition to the general education outcomes work described earlier, COCC has in recent years put an increased focus on supporting the development of concise and measurable outcomes at all levels. The director of assessment and curriculum created a [Faculty Tool Kit](#) for instructional assessment, which includes guidance on developing learning outcomes as well as before-and-after examples of outcome improvements. A more recently added resource is a Canvas course called *SLO 101: Student Learning Outcomes Orientation*. This is a self-paced course available to all faculty that teaches its users about the rationale and purpose of outcomes assessment, COCC's assessment cycle, how to evaluate existing outcomes and create improved ones, and also contains guidance about assessment. The director of assessment and curriculum has also held individual consultations and group workshops with faculty who are working on revising their outcomes.

In 2021-22, COCC's Academic Affairs Committee approved a set of institutional outcomes, or core competencies, that every graduate of a program one year or longer will achieve. These cover the areas of communication, computation, and human relations/cultural literacy, and they are mapped directly to both general education outcomes and related instruction outcomes for CTE programs, as seen in Table 9. This work marks a continuation of the College's movement toward integrated assessment at all levels, as these competencies will be assessed through the general education outcomes assessment process.

Table 9: Core Competencies, Related Instruction Outcomes and General Education Outcomes

COMMUNICATION	
Core competency: Communicate effectively and ethically for a variety of audiences.	
Related Instruction outcomes	General Education outcome
1. Communicate clearly, accurately, and professionally in a variety of situations including workplace scenarios. 2. Communicate confidently and effectively with a variety of audiences and be prepared to apply these skills in the workplace.	1. Communicate effectively and ethically for a variety of audiences.
COMPUTATION	
Core competency: Apply appropriate mathematics to solve problems and interpret results.	
Related Instruction outcomes	General Education outcome
1. Solve basic problems using mathematical principles and be prepared to apply them to workplace scenarios. 2. Evaluate and interpret data in order to make informed decisions in the workplace.	1. Apply appropriate mathematics to solve problems and interpret results.
HUMAN RELATIONS/CULTURAL LITERACY	
Core competency: Demonstrate respect and empathy for individuals with diverse backgrounds, experiences, and perspectives.	
Related Instruction outcomes	General Education outcome
1. Identify and model behaviors that demonstrate respect for diverse perspectives and experiences and be prepared to apply them in the workplace. 2. Collaborate and dialogue with empathy and respect.	1. Analyze complex practices, values, and beliefs and the culturally and historically defined meanings of difference.

Another recent addition to COCC's assessment toolbox is CTE program mapping, an improved framework for program-level assessment. Programs map each required course to program-level outcomes, indicating whether an outcome is introduced (I), reinforced (R), or where proficiency in the outcome is measured (M). See Table 10 for an example (N indicates that the outcome is not addressed in the course). This analysis has helped program faculty to review the effectiveness of their curricular structure and to clearly identify courses where formal program-level assessment should occur.

Table 10: Sample CTE Program Map

PHARMACY TECHNICIAN CERTIFICATE	TERM 1			TERM 2			TERM 3		
	PHM 100	PHM 115	PHM 120	PHM 110	PHM 130	PHM 140	PHM 145	PHM 181	PHM 190
Program Learning Outcomes									
Perform mathematical calculations essential to the duties of pharmacy technicians.	I	R	N	M	N	I	M	N	M
Select appropriate medication from inventory.	N	R	R	N	M	N	M	N	M
Apply state and federal laws pertaining to medication processing, handling, and dispensing.	R	R	I	N	I	M	R	N	M
Apply patient and medication safety practices.	I	R	R	N	R	I	M	N	M
Fill prescriptions/medication orders to ensure completeness, accuracy, authenticity, and safety.	I	R	R	N	R	I	M	N	M
Summarize national test standards and information needed to pass the pharmacy technician certification exam.	R	I	R	R	R	M	I	M	R

COCC's work to address NWCCU's recommendation has been complicated by a few factors, such as the impact of COVID on faculty workload during both the 2020-21 and 2021-22 academic years. Faculty were encouraged to focus their energies on instructional changes that would support student success in remote learning conditions. In addition, the College also switched to a new learning management system in winter 2022, which also required significant retooling of course delivery methods by faculty. Finally, leadership changes during this time included the retirement of the director of assessment and curriculum in December 2020 and the departure of the subsequent director in August 2022. This position was not filled until December 2022. In addition, the vice president of instruction, who oversees this position, retired in June 2022 and was replaced by a vice president of academic affairs in July 2022. Regardless, COCC determined during the 2021-22 academic year that its best course would be to complete the final year of its five-year assessment cycle and take some time to reflect on adjustments needed before implementing major changes.

The new vice president and director will prioritize further integration of course-level outcomes assessment into COCC's overall assessment strategy as well as the continuation of the College's move toward technology-facilitated assessment work.