



C U Y A M A C A
• C O L L E G E •

Comprehensive Program Review and Dean Feedback Report

Academic - Surveying (SURV) - (CE)

Provide students with training on equipment and technology used in the field (Goal 1)

Program Goal: Provide students with training on equipment and technology used in the field

Goal Status: Active

Mapping

2022 - 2028 Strategic Plan: (X)

- **Increase Equitable Access:** Provide students with training on equipment and technology used in the field (X)
- **Eliminate Equity Gaps in Course Success:** Provide students with training on equipment and technology used in the field (X)
- **Increase Persistence and Eliminate Equity Gaps:** Provide students with training on equipment and technology used in the field (X)
- **Increase Completion and Eliminate Equity Gaps:** Provide students with training on equipment and technology used in the field (X)

Summary of Progress or Results

Summary Date: 01/08/2026

Summary of Progress or Results: Forever continuing

Reporting Period: 2025 - 2026

Status: In Progress - will carry forward into next year

What resources, if any, are needed to achieve this goal? (Select all that apply): New faculty position

Action steps for this academic year.:

As a career education program, our primary goal in Surveying is to provide students with hands-on experience using cutting-edge equipment and technologies. Don, our new coordinator, has continued his relationship with Trimble, which positions us for future equipment donations and ongoing access to industry-standard surveying software. Additionally, we are launching our new drone certificate, designed to give students experience with the advanced unmanned aerial technologies increasingly used in the surveying field.

While we are making meaningful progress, the program would greatly benefit from a full-time surveying instructor. This role is essential for maintaining strong industry partnerships, ensuring stability in course offerings (especially given recent cancellations that have delayed student progress by up to a year), and guaranteeing that we have both a Professional Land Surveyor and an FAA Remote Pilot Certificate holder available to teach the surveying and drone courses. Having a dedicated full-time faculty member is key to moving this program forward.

Create apprenticeship program to create opportunities for program graduates (Goal 2)

Program Goal: Create apprenticeship program to create opportunities for program graduates

Goal Status: Active

Mapping

2022 - 2028 Strategic Plan: (X)

- **Increase Equitable Access:** Create apprenticeship program to create opportunities for program graduates (X)

- **Eliminate Equity Gaps in Course Success:** Create apprenticeship program to create opportunities for program graduates (X)
- **Increase Persistence and Eliminate Equity Gaps:** Create apprenticeship program to create opportunities for program graduates (X)
- **Increase Completion and Eliminate Equity Gaps:** Create apprenticeship program to create opportunities for program graduates (X)

Summary of Progress or Results

Summary Date: 01/08/2026

Summary of Progress or Results: Stalled till we have a full-time faculty

Reporting Period: 2025 - 2026

Status: In Progress - will carry forward into next year

What resources, if any, are needed to achieve this goal? (Select all that apply): New faculty position

Action steps for this academic year.:

No advancement has been made because we need a fully dedicated faculty member to cultivate and strengthen our industry and advisory board relationships in order to formally establish an apprenticeship program.

Increase stability of surveying instruction by hiring a full-time instructor (Goal 3)

Program Goal: Increase stability of surveying instruction by hiring a full-time instructor

Goal Status: Active

Mapping

2022 - 2028 Strategic Plan: (X)

- **Increase Equitable Access:** Increase stability of surveying instruction by hiring a full-time instructor (X)
- **Eliminate Equity Gaps in Course Success:** Increase stability of surveying instruction by hiring a full-time instructor (X)
- **Increase Persistence and Eliminate Equity Gaps:** Increase stability of surveying instruction by hiring a full-time instructor (X)
- **Increase Completion and Eliminate Equity Gaps:** Increase stability of surveying instruction by hiring a full-time instructor (X)
- **Increase Hiring and Retention of Diverse Employees:** Increase stability of surveying instruction by hiring a full-time instructor (X)

Summary of Progress or Results

Summary Date: 01/08/2026

Summary of Progress or Results: Dire need for growing the program

Reporting Period: 2025 - 2026

Status: In Progress - will carry forward into next year

What resources, if any, are needed to achieve this goal? (Select all that apply): New faculty position

Action steps for this academic year.:

There is continued industry demand for surveyors, and with a large portion of the current workforce approaching retirement age, our program is well-positioned for significant growth. However, we are unable to fully capitalize on this opportunity. While demand for surveyors is high, many younger students are either unaware of the field or hesitant to pursue it. A full-time faculty member is essential for building strong connections with regional high schools to promote the program, create pathways into the field, and partner with industry to support workers transitioning into surveying. This faculty

Summary of Progress or Results

member would also serve as an internal advocate for the program.

At present, the coordinator receives only 0.05 reassigned time to run the program, which is insufficient for meaningful program development. Despite these limitations, the program continues to grow—but the potential for growth would be far greater with a dedicated full-time instructor.

Additionally, we need to provide students with greater stability in course offerings. Frequent course cancellations—often due to adjunct instructors withdrawing from their assignments—have disrupted student progress. Finding qualified replacements is increasingly challenging, especially now that we require both a Professional Land Surveyor and an FAA Remote Pilot certificate holder to support the new drone certificate. A full-time faculty member is urgently needed to ensure program stability, strengthen industry and educational partnerships, and support continued growth for our students.

Program Overview and Update

Please briefly share the ways in which you collaborated with colleagues within and outside of your department to gather input to inform your program review.

I have served as the Surveying Coordinator for several years, but with the Dean's approval, we are transitioning the role to adjunct faculty member Don Woolley. Don is now retired and has expressed a strong interest in dedicating more of his time to the program and mentoring the next generation. In addition, he is a recognized expert in the field and regularly interacts with the other surveying adjuncts, who primarily teach on Saturdays—times when I am not on campus.

As coordinator, I have felt limited in the support I can realistically provide due to the minimal reassigned time allocated to the role and the fact that I rarely see the adjunct faculty in person since they teach on weekends and typically work during the week. Because of this, I am using this program review as a way to formally move Don into the coordinator position.

I attempted to involve the Dean in this process, but he was extremely busy during Fall 2025 and subsequently went on leave. As a result, I am writing the majority of this program review on my own.

Dean/Manager(s)

George Dowden

Please briefly share the ways in which you collaborated with your Dean on your program review to discuss your vision, goals, and resource needs/requests.

As noted earlier, I was unable to collaborate extensively with the Dean during the development of this program review.

Program Reflection and Description

Provide your program's mission statement. If your program does not have a mission statement, what is your timeline for creating a mission statement?

We have not written a comprehensive review for this program in at least a decade, and we are not aware of any existing mission statement. Therefore, I am proposing the following new mission statement for the incoming coordinator to review and refine in collaboration with the adjunct faculty:

"Our program's mission is to provide a cutting-edge, hands-on education in surveying grounded in fundamental principles and propelled by the advanced technologies and methodologies used in today's industry. Through this strong foundation of knowledge and practical experience, our students will be prepared to enter the profession as innovative, skilled, and proactive surveyors."

Is the program description in the current college catalog up to date and accurate?

No

If you answered no above, what steps will you take to revise the college catalog description?

The current program does not reflect the growth of our program both as the sole provider of surveying instruction in the region and our expansion into the use of drone technologies for surveying applications. Additionally, the existing program description emphasizes Civil Engineering rather than the field of Surveying, which should be updated. Below is the current catalog description:

"This degree program prepares students to enter the civil engineering field. Competency in care and operation of field instruments, solution of problems in the laboratory, drafting of land survey maps and civil engineering plans, and application of studies to field practice are thoroughly explored."

Comprehensive Program Review

I believe this is an excellent opportunity for the new coordinator to collaborate with the adjunct faculty to revise the program description. It is an important task, but not so extensive as to be overwhelming for someone new to the role.

Describe how your program advances the College's vision of equity, excellence, and social justice through education. How does the program reflect the College's mission and values?

Our surveying program is the only one of its kind in the region, offering a distinctive educational experience and valuable service to our community. Through hands-on, applied learning, we prepare students to become strong contributors to the workforce, empowering them with opportunities for both social and economic mobility.

Curriculum Review and Development

Have all of your active course outlines been reviewed within the last five years?

Yes

Please list any planned changes from the current semester forward for curriculum (courses, degrees, and/or certificates) and the rationale for those changes.

We recently implemented new curriculum focused on the use of drones in surveying to address industry needs identified by our employee advisory board. The curriculum has been developed, and courses will begin this year. For now, our priority will be on successfully implementing this new curriculum.

Please upload the 2-year course rotation(s)/schedule(s) for each associate degree covered by this program review.

[SURV course rotation.pdf](#)

For Transfer Programs: How is your program meeting the transfer needs of students, and/or articulation with four-year institutions? If not a transfer program, please enter N/A

N/A

Student Learning Outcomes (SLO) Assessment

Please upload an updated, current version of your SLO assessment plan. (Ideally, the updated plan should specify assessment semesters for all service areas over the next 4 years, between this comprehensive program review and the next.)

[FA25-Surveying - Student Learning Outcomes Assessment Plan Template - Instructional.docx](#)

What do your course SLO data over the past 4 years suggest about student experiences, successes, and challenges in your service area?

Our SLO data is currently very limited. Until this year, we only had three courses in the program: SURV 218, SURV 220, and SURV 240.

SURV 218 is offered every semester and was assessed in 2023. All three SLOs were evaluated through hands-on field surveying practices, with students demonstrating high levels of success—an excellent indicator that we are preparing them for the workforce. However, the instructor noted that limited equipment made the assessment challenging and emphasized the need to request additional resources from industry partners. Enrollment in SURV 218 has been consistently strong, with waitlists every semester. To meet this demand, we will need to acquire more equipment and/or offer additional sections of SURV 218.

Assessing SLOs for SURV 220 and SURV 240 has been more difficult. These courses are typically offered only in the spring, and low enrollment often leads to cancellations. Combined with the challenge of encouraging adjunct faculty to regularly assess SLOs, the last assessment for these courses occurred in Spring 2017—an unacceptable gap that must be addressed.

Additionally, we have developed three new courses—SURV 100, SURV 101, and SURV 102—which have not yet been offered, so no SLO data is available for them.

As a result, we currently lack sufficient data to represent the program as a whole.

Comprehensive Program Review

Share an example of meaningful, innovative, equitable, and/or student-centered SLO assessment happening in your program.

In SURV 218, instructor Don Woolley used a capstone assignment to assess students' ability to *"solve a sequence of similar problems using older transits and pace methods, refine results with theodolite instruments, and apply standard tools of surveying."* Don evaluated student-collected and documented measurements against known field measurements, providing feedback on accuracy, thoroughness, and neatness. This holistic approach closely mirrors industry expectations and effectively prepares students for professional surveying work.

Discuss how your SLO data are being used for course and/or program improvements for student retention, success, and/or goal achievement.

Currently, our SLO data is primarily used to highlight equipment limitations in SURV 218 and is not leveraged for higher-level analysis. This is largely due to two factors: the absence of a regular SLO assessment cycle and a lack of emphasis on the importance of these assessments.

Degree and Certificate Programs

For each degree and certificate indicate how many awards were conferred in the past five years. Please comment on any trends and provide context to explain any increases or decreases.

The SURV program has awarded 25 degrees and 11 certificates over the past five years. Degree completions have grown from 3 in 2020–2021 to a peak of 9 in 2023–2024, followed by 5 in 2024–2025. Certificate awards have shown steady growth as well, starting at 0 in 2020–2021 and reaching 6 in 2024–2025. Overall, the trend reflects a general increase in both degrees and certificates.

One possible explanation for these patterns is the California Board's requirements for becoming a Land Surveyor-in-Training (LSIT), which allow candidates to qualify through two years of education, work experience, or a combination of both. Our instructors report that many surveying students secure employment after completing just one or two courses. As a result, some students may opt out of pursuing a full degree, or choose a certificate instead, since they can meet LSIT requirements through additional work experience.

This is a trend we should continue to monitor closely in the coming years.

Indicate when each degree and certificate was last reviewed and updated (semester), if this information is available (e.g., via internal program records or Curriculum Committee minutes).

In Fall 2023, we reviewed our certificates and degrees with the Employee Advisory Board. Based on their feedback, we developed a new certificate focused on the application of drones in surveying. This certificate launched and is available starting this academic year.

Can students complete the degree/certificate requirements within a two-year period?

Yes

How is your program currently assessing its PLOs? Please select all that apply.

Other

If you answered "Other" above, please specify here.

In most of the programs I (Keenan) oversee, we have successfully mapped Student Learning Outcomes (SLOs) to Program Learning Outcomes (PLOs) for assessment. However, the surveying program has fallen short in assessing SLOs within its more advanced courses. As a result, PLOs have not been effectively assessed by default.

Please provide the following for each degree/certificate: • The most recent semester each of your program(s) assessed PLOs; • Brief summary of findings; and • Overview of changes made as a result.

We have not assessed PLO's which needs to be addressed.

Are all of your degree maps completed?

No

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If you answered "No" above, what are your plans to complete the degree maps for your program?

Since we do not have any degree map documentation on file going back to 2019, I created a draft degree map to support the transition. I've recommended that the new coordinator collaborate with Counseling and our surveying adjuncts to review, refine, and complete the final version.

Are the degree maps posted to the college website?

No

If you answered "No" above, what are your plans to publish the degree maps for your program?

Once the degree map is finalized, the new coordinator can publish it to the website.

How are you currently assessing your PLOs? If you are not currently assessing PLOs, what is your plan to assess PLOs in the future?

The SURV program has faced challenges engaging adjunct faculty in assessing SLOs. To address this, I (Keenan) will work with the new coordinator, Don, who begins next semester, to establish a consistent process for SLO assessments so they can be properly mapped to PLOs. This is an important first step, as the program currently has no full-time faculty. Don's strong working relationship with adjunct faculty—combined with his experience as both an adjunct instructor and a professional surveyor—positions him well to lead this effort effectively.

How are your PLO assessments informing improvements/changes to your program?

Currently, PLO assessments are incomplete and, as a result, are not being used to guide improvements or changes within our program.

Student Access and Achievement

Please describe any enrollment changes (increases/decreases) over the past 4 years and the context for these changes.

Analyzing spring enrollment trends provides the clearest picture, as all SURV courses are offered each spring semester. This pattern only changes in rare cases, such as unforeseen class cancellations due to low enrollment or the sudden loss of an instructor. Over the past two years, enrollment growth has solidified into a clear upward trend.

From Spring 2021 to Spring 2023, enrollment remained relatively modest, ranging from 15 to 22 students. However, starting in Spring 2024, the program experienced significant growth, jumping to 45 students and then to 51 students in Spring 2025. Overall, the program enrolled 153 students across these five years, reflecting strong recent demand and a positive trajectory for the SURV program.

If your program has seen a significant decline in enrollment over the past 4 years, what resources or support would be helpful to improve program enrollment and access?

N/A

What is the program doing to increase student enrollment or access?

Enrollment in the SURV program continues to reflect the demographic trends of the surveying profession, which is historically and currently a predominantly white, male-represented field. Over the past five years, men have consistently made up 70–83% of enrollment, compared to 43% college-wide, while female representation has remained low at 17–27%, far below the campus average of 55%. Racial and ethnic diversity also lags behind college-wide figures, with White students comprising the largest share of enrollment, reaching 57% in Spring 2025 compared to 22% college-wide. Hispanic/Latino students have shown strong but inconsistent representation, ranging from 17–53%, while Middle Eastern/North African students have had notable presence in some years, exceeding campus averages. Other groups, including African-American, Asian, and American Indian students, remain significantly underrepresented. Age trends reveal that SURV attracts an older student population compared to the college overall. While college-wide enrollment skews younger, with 60% under age 25, SURV has seen a sharp increase in students aged 25–39, rising from 28% in 2021 to 53% in 2025, and an increase in students aged 40 and older to 17%, suggesting the program appeals more to career changers and working professionals than traditional college-aged students.

To address these trends and broaden access, we have introduced a new certificate focused on drone technology in surveying. This program responds to industry demand and offers an innovative entry point into the field, which we hope will attract younger and more diverse students interested in technology.

Comprehensive Program Review

and emerging applications. By marketing this certificate as a modern, high-tech pathway, we aim to increase representation among women, underrepresented racial and ethnic groups, and younger learners, while continuing to meet workforce needs in this evolving industry.

What is your program's overall course success rate? How has it changed over the past 4-5 years?

Success rates in the SURV program have generally been strong and show a clear upward trend over time, despite fluctuations. In Fall semesters, success was perfect at 100% in 2020 and 2021 when enrollment was very small, then declined slightly as enrollment grew: 89% in Fall 2022, 79% in Fall 2023, and remained at 79% in Fall 2024. Overall, Fall terms averaged an 86% success rate.

Spring semesters show a similar but more positive trajectory. Success started at 77% in Spring 2021, improved to 87% in 2022 and 85% in 2023, held steady at 84% in 2024 despite a large enrollment increase, and then jumped dramatically to 96% in Spring 2025. Across all Spring terms, the average success rate was 88%.

Taken together, these trends indicate that while success dipped slightly during periods of rapid enrollment growth, the program has made significant progress, culminating in exceptional performance in the most recent year.

Which groups are experiencing equity gaps in your program for success rate and/or retention rate?

Our enrollment is now large enough to begin identifying potential equity-gap trends in success and retention; however, the current data does not show any areas of concern.

What department/discipline (or institutional) factors may be contributing to these lower rates of success for these groups of students?

N/A

How has this data shaped your comprehensive program review goals and action steps?

Our enrollment trends continue to rise, but we are still not meeting industry demand. To support our goals and expand the surveying pathway from high school through career placement—as well as to assist industry workers who want to transition into surveying—we need a full-time faculty member dedicated to leading and growing the program.

Discuss your department/discipline's plan for diversifying department faculty in alignment with the GCCCD Board Resolution 20-015.

The field of surveying is predominantly composed of white male practitioners, and this demographic reality is reflected in our current adjunct pool. Diversifying our adjunct faculty is extremely challenging due to the limited diversity within the industry and the strict credentialing requirements, including Professional Land Surveyor licensure and, with the addition of the drone certificate, an FAA Remote Pilot certification. For these reasons, I continue to advocate for a full-time surveying instructor who can provide stability to the program, meet the credential requirements, and help us build a foundation for greater diversity in the long term.

What other qualitative or quantitative data, if any, is the department/discipline using to inform its planning for this comprehensive program review?

N/A

Distance Education Course Success (If Applicable)

If your department offers distance education classes, how do you ensure Regular and Substantive Interaction (RSI) is being implemented?

N/A

If there are differences in success rates for distance education (online) versus in-person classes, what will the program do to address these disparities? If there are no differences, what did the program do to achieve that?

N/A

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Career Exploration and Program Demand (Career Education Programs Only)

Is your program a career education program (e.g., does it prepare students to directly enter the workforce)?

Yes (Complete the remaining questions in this section)

If you answered "yes," how is your program meeting labor market demand and preparing students to enter the workforce?

The top defining skills in the region that represent the day-to-day activities and responsibilities in the surveying profession include AutoCAD, CAD, Surveying, and Legal Land Description. According to the labor market report, all of these skills are identified as "growing" or "rapidly growing," reflecting increasing regional demand for workers proficient in these areas. Our program has consistently provided instruction and hands-on training in these skills and continues to prepare students effectively for the current and emerging needs of the workforce.

Please share your observations about the employment rate for your program over the last 4 years.

According to our adjunct instructors, employment trends in the surveying field remain strong. Many of our adjuncts either have open positions within their own firms or are aware of employers actively seeking surveyors. As a result, a significant number of our students secure employment while they are still enrolled in the program. Ironically, because work experience counts toward professional licensure in California, students who gain employment often do not complete the degree, as a degree is not required for licensure in the state. Nevertheless, this reflects our program's success: we are effectively preparing students to enter the workforce quickly and competently, even if it reduces degree-completion numbers.

What is the institution-set standard for your program's employment rate?

We as a program have not discussed employment metrics with our Dean or established a formal employment rate during my tenure as coordinator. Part of the reason may be related to what I outlined above: we consistently observe that many surveying students secure employment while still enrolled at Cuyamaca, which often results in students not completing the degree once they begin working, as a degree is not required for licensure in California. Despite its impact on completion data, this trend indicates that our students are in high demand and are contributing to the workforce early in their education. Establishing an employment-related metric could be a valuable area for the new coordinator to explore in collaboration with the Dean and adjunct faculty.

What would you like your program's employment rate to be, ideally (stretch goal)?

Based on the volume of employer inquiries I receive through emails and phone calls, it would not be unreasonable for the program to aim for an employment rate in the range of 90–100%. The demand for surveying students is consistently high, and employers regularly reach out seeking candidates with the skills our students develop. However, achieving an accurate employment rate would require us to find a way to track students who leave the program early because they secure work and pursue licensure through on-the-job experience rather than completing the degree. Developing a method to capture these employment outcomes would allow us to set a meaningful and realistic benchmark for the program, particularly given the strong regional workforce needs and the frequency with which students enter the profession while still enrolled.

What do the latest labor market data reveal about the careers (including those for transfer students) for which your program prepares students?

Regional growth in career opportunities closely mirrors national trends at approximately 2%. However, salaries in our region are roughly 31% higher than the national average for these occupations. This wage advantage demonstrates that our students have exceptionally strong career opportunities locally, both in terms of job availability and earning potential.

Please upload your career education program advisory committee minutes for the past 4 years.

[Surveying Agenda Fall 23_MINUTES.docx](#);

[Surveying Agenda Spring 23_MINUTES.docx](#)

Comprehensive Program Review

Strengths, Challenges & External Influences

Please describe your program's strengths.

We are fortunate to have several adjunct faculty whose long-term commitment has allowed the program to grow, even without consistent oversight. Their dedication—and their willingness to contribute beyond the scope of their contracts—is the reason the program continues to operate and expand. They have played a crucial role in building relationships with industry partners and our advisory board, which has led to equipment donations and valuable input for curriculum development. With a full-time faculty member, these efforts could be further strengthened and have an even greater impact on the program's future growth.

Please describe your program's challenges.

We have a small group of core adjunct faculty whose dedication has kept the program running, and their long-term commitment has been essential to maintaining course offerings. However, we have also experienced too many instances where other adjuncts have withdrawn from their teaching agreements on short notice, resulting in class cancellations and delaying students' access to required courses by up to a year. Recruiting new adjuncts is extremely challenging—especially now that the drone certificate requires candidates who are willing to teach on weekends **and** hold both a Professional Surveyor license and an FAA Remote Pilot certificate. This difficulty is one of the major reasons we urgently need a full-time faculty member. Additionally, a full-time faculty member is critical to developing a strong pathway into our program from both high schools and the industry. With significant industry demand for surveyors, we need someone who can actively bridge prospective students into the profession and cultivate the connections necessary to sustain and grow the program.

Please describe external influences that affect your program (both positively and negatively).

The Surveying program is influenced by several external factors, both positive and negative. Strong industry demand—driven in part by an aging workforce nearing retirement—positions the program for significant growth, and partnerships with companies like Trimble have provided access to advanced equipment, software, and curriculum support. Emerging technologies such as UAVs have also created opportunities, reflected in the launch of our new drone certificate. However, limited public awareness of surveying careers restricts the number of prospective students entering the field, and the industry's predominantly white male demographics make diversifying our adjunct pool extremely difficult. Strict credentialing requirements, including the need for a Professional Land Surveyor license and now an FAA Remote Pilot certificate, make it challenging to recruit qualified adjuncts, resulting in last-minute cancellations that delay students by up to a year. Additionally, the lack of a full-time faculty member limits our ability to maintain industry partnerships, strengthen advisory board engagement, build high school pathways, and advance apprenticeship initiatives. While external industry support is strong, these challenges significantly impact program stability and growth.

Given these factors, what opportunities exist for the service area to advance the College's goals in the next 4 years?

The Surveying program has several opportunities to advance the College's goals over the next four years. Rising industry demand, the retirement of much of the current workforce, and strong partnerships—such as those with Trimble—position the program to create new pathways that support the College's mission of advancing equity, social justice, and student-centered learning. Strengthening outreach to regional high schools and industry partners offers a chance to expand awareness of surveying careers, increase access for historically underrepresented students, and promote economic and social mobility, directly supporting the College's vision of equity, excellence, and social justice through education. Developing the new drone certificate and integrating emerging technologies also aligns with the College's value of innovation, creating inclusive and forward-looking learning experiences. Finally, securing a full-time faculty member would stabilize course offerings, deepen community partnerships, and enhance student success—supporting the College's commitment to being student-centered, closing equity gaps, and sustaining high-quality educational programs that respond to community workforce needs.

Comprehensive Program Review

Program Goals

Program Goals Status

I have updated the progress on my previous goals.

Program Goals Mapping

Mapping for all active Program Goals complete.

Submission
