CITY COLLEGE OF SAN FRANCISCO

OUTCOMES & ASSESSMENT

Institutional Learning Outcome 1: Critical Thinking & Information Competency

Assessment Report, Spring 2026

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Introduction

The assessment of Institutional Learning Outcomes (ILOs) serves as a mechanism for examining student achievement of essential skills and knowledge aligned with the college's mission. ILOs are intentionally broad, capturing learning that occurs across educational programs, including credit and noncredit programs, academic and career preparation, student services, and co-curricular activities.

ILO 1: Critical Thinking and Information Competency
A. Apply quantitative reasoning to questions or problems.
B. Locate, evaluate, and use information appropriately.
C. Use critical or creative reasoning, including diverse perspectives.

City College students frequently engage in critical thinking and information competency throughout their educational journey. Whether utilizing library resources, writing papers, applying mathematical concepts to real world situations, arguing in favor or against a solution, or creating a piece of art, students build competencies that contribute to ILO 1.
This report presents institutional improvements, program mapping, and attainment levels for ILO 1 during the Fall 2021–Spring 2025 assessment period. As with other ILO reports, this assessment includes aggregated data from section-level assessments of student learning, policy changes at the college related to the ILO, and qualitative data gathered from select interviews with the college community.

College Improvements Supporting ILO 1 Student Attainment 2023-26: Select Examples

The improvement efforts identified in this section occurred at the college between Fall 2022 and Spring 2026 semesters. This is not a comprehensive list of improvements, but rather a set of examples that show the focus of the college on this area. Where relevant, references are made to the discussion and suggestions from the 2022 ILO assessment report. As shown below, ILO 1 proficiency has increased across all three sub-elements since the prior assessment (based on SLO assessments reported in CurrIQunet), with all three sub-elements showing over 82% proficiency in fall 2025.

Improvement efforts are categorized loosely by type below, each involving one or more of the ILO 1 sub-elements (quantitative reasoning, information competency, and critical and creative reasoning). In scanning for improvements related to ILO 1 instruction and learning, the SLO coordinators met with faculty in the Library, Learning Assistance, Math, English, and Transitional Studies departments. Nearly every department at the college plays a role in supporting students to develop ILO 1 competencies, but these departments have a particularly significant role. Examples from these conversations are included below.

Professional development

In this time, a number of Flex workshops were offered that relate to ILO 1 competencies:

- January 14, 2022, **"**Copyright, not Copywrong: how to avoid breaking rules.**"** This workshop reviewed the basics of copyright, finding & using library resources cleared for educational use, and accessing Open Education Resources and Creative Commons materials.
- March 1st, 2022, "Dive into Art-Literally!" focused on identifying learning style preferences (visual/auditory/kinesthetic), in order to apply inclusive teaching techniques to multi-disciplinary explorations of creative artwork.
- March 9, 2023 "Curiosity and the Hand: Developing Discovery to Expand Knowledge and Success Through the Arts" explored connections among creativity, curiosity, and scientific research, also highlighting why the arts are an important part of the new CCSF Science Technology Engineering Arts & Mathematics (STEAM) building.
- Several workshops on **artificial intelligence (AI)** have been offered in recent years; AI is discussed below as an emerging issue related to ILO 1.
- In addition, the college has focused on **closing opportunity gaps** in a number of ways, including communities of practice (those in the Math department are discussed below); professional development led by the Office of Student Equity; and numerous Flex Day workshops (such as Showing Up for Equity in March 2025; Understanding and Recognizing Implicit Bias in January 2025; UndocuAlly in August 2024 and subsequent flex days; and Whose Story Matters? In October 2022). While these efforts were not necessarily focused on ILO 1, they may have contributed to the college's improved attainment of ILO 1 competencies through more inclusive and effective pedagogy.
- Many departments engage in ongoing department-specific professional development. The Math department provided an especially strong example of this, with a clear tie to the development of quantitative reasoning (ILO 1a). The Math department runs several Communities of Practice (COP) in parallel:
    - They have one COP for faculty teaching statistics, focused on evaluation and scoring, for more consistency and commonality.
    - They have one for Math 108, Foundations of Data Science, with weekly work sessions to edit and plan, among the instructors, tutors and TAs. "We share the work that we would ordinarily do alone."
    - They also have one COP funded through Student Equity, focused on calculus and teaching in various modalities. In addition, they have a calculus activities group, developing activities in the physical world.
- The English Department has a Teaching and Learning Academy professional development event planned for the end of Spring 2026 semester, an intensive training in equitable pedagogical approaches.

Library

- A new online workshop, *Academic Integrity at CCSF*, launched in 2023, expanding the library's suite to nine information competency workshops. It helps students distinguish between academic

integrity and dishonesty, recognize risk factors for misconduct, and apply strategies and campus resources to support ethical academic practices. Participation has grown from 750 students per semester in its first year to roughly 1,400 students per semester over the past two years.

- The library continues to meet students where they are by embedding subject-specific research guides directly in Canvas. Since launching in 2021, these guides have made it easier for students to access relevant resources, databases, workshops, and 24/7 librarian support within their courses, increasing visibility and supporting information competency. Usage has grown steadily, suggesting this integration strengthens student engagement. In spring 2026, all guides were updated to meet WCAG 2.1 Level AA accessibility standards.
- Asynchronous and librarian-led workshops are widely used across the college to build information competency skills. Participation in online workshops grew from 3,393 students in AY 2022–23 to 4,512 in AY 2024–25, with over 16,000 completions and success rates above 95%. Additionally, each semester, faculty from more than twenty departments request customized, in-person course-integrated workshops in which librarians teach information competency skills.
- The embedded librarian project is discussed further below.

Learning Assistance Department

The Learning Assistance Department / Star Center reported several recent improvements that have supported student learning overall, by integrating social/emotional learning and expanding access. These efforts also contribute to ILO 1 by helping students strengthen confidence and academic habits needed for problem solving, critical and creative thinking, and effective use of information. Through tutoring, students practice analyzing course concepts, asking questions, evaluating feedback, and applying strategies to solve problems independently. Students who participate in Star Center tutoring have a 90.2% retention rate (passing the course they received tutoring for and enrolling in the following semester), compared to a retention rate of 73% at the college overall[1] in the 2024-25 academic year.

The department has made a concerted effort to remove barriers to students in recent years, to increase the use of tutoring. Among these actions to remove barriers were the following:

- The department changed policies that previously prohibited parenting students from bringing their children into the tutoring center; in Fall 2024 it opened three designated family study spaces to support parenting students' academic success.
- The department previously required peer tutors to earn an A in the course or subject they plan to tutor; by lowering this to a B and adding other measures to assess and support readiness, the department has increased the number and diversity of peer tutors. The LERN 10 class for training tutors was also enhanced with more content to prepare students to meet the needs of diverse learners. As a result, tutees receiving support are more likely to find a tutor that they can relate to.
- Resource peer tutor/mentors - A new category of peer tutors was launched in 2022 to assist students in navigating campus resources, trained in the social and emotional dimensions of

[1] Tutoring clearly has an impact on student success. There may also be some selection bias affecting the data, as students opt in to tutoring services.

learning along with academic support. This group of 8 to 9 tutors has been especially useful to students experiencing social barriers like housing or food insecurity.
- The department has expanded services to these Centers: Mission, Chinatown, and John Adams.
- In partnership with the Adult Education Program, the department has added noncredit tutors, including those focused on supporting the transition from noncredit to credit.

The Writing Success Project (funded by TRIO, a federal grant) reached approximately 5-15% of students enrolled in English 1A (now C1000) and English 1B (now C1001). These courses directly address ILO 1b and 1c. Students benefited from tutoring in a substantial way. According to data provided by the Writing Success Project (WSP), students who participated in WSP tutoring experienced higher course success rates (for example, in English 1A in Spring 2025, 78.8% of students who received WSP tutoring passed, compared to 57.0% of all students enrolled in English 1A that semester. For English 1B in that same semester, 89.4% of WSP students passed, compared to 76.2% of students overall. Of note, students in equity populations who participated in WSP tutoring passed their classes at a rate higher than the college average (in Spring 2025, 71.0% of WSP students in equity populations passed English 1A and 83% passed English 1B).

Instructional changes

- As an example of *continuing* a practice with demonstrated effectiveness, the college has continued to fund and implement embedded tutors and librarians in English and Math courses. Embedding tutoring in English and Math and librarians in English has contributed to improved metrics both for student success overall and for equity populations. (In discussing ILO 1, English faculty noted that they are continually finding new ways to make use of the librarians in their courses: "Working with the embedded librarians just gets better each time.") The strategy of embedding tutors and librarians in classes was discussed in the 2022 ILO 1 report. Recent developments in the use of embedded librarians are discussed below in more detail.
- Improved completions: December 2024 data from the CCSF Office of Research and Planning showed that 63.7% of CCSF students passed transfer-level English in their first year, and 66.6% passed transfer-level Math in their first year. Even so, opportunity gaps persist[2]. African American, Latinx, and foster youth are less likely to complete transfer-level English in their first year, while African American, Latinx, DSPS, first generation, and foster youth are less likely to complete transfer-level Math in their first year[3]. For comparison, in Spring 2019, only 32% of students in equity populations and only 56% of students not in equity populations had completed transfer-level math in two semesters; for transfer-level English, those numbers were 46% for equity populations and 64% for non-equity populations.[4]
- In interviews with faculty in English, Math, and Transitional Studies, several instructional strategies were highlighted as possibly contributing to improved critical thinking, information competency, and quantitative reasoning among students:

[2] SEA Data (December 2024). CCSF.
[3] SEA Data (December 2024). CCSF.
[4] Learn About Student Equity at CCSF, Research Brief (2020). CCSF.

- Project-based learning was highlighted in all three departments. Projects commonly include a research component and an application to real-world circumstances.
- Students' sense of trust and belonging in the classroom, as well as choice in selecting a topic for research, was mentioned often.
- CCSF's Reading and Writing Center helps with critical thinking, by breaking down the reading process and making it visible. It helps students develop strategies for asking questions and exploring them more deeply.
- Critical thinking, creative reasoning, and information competency are all used in assignments that invite students to weigh different sources of information, analyze positionality, contrast with their own life experience, and develop their own arguments.
- In the Math department, various instructors are using newer technologies to teach quantitative reasoning, including homework systems, OER, and Jupiter notebooks, as ways to apply the content.
- In Transitional Studies, faculty described contextualized learning and projects that use critical, creative, and quantitative reasoning. Examples included mapping ideas to distinguish major and minor concepts; applying rhetoric principles like logos, ethos and pathos to analysis of literature; identifying logical fallacies; and calculating and applying ratios and proportions for diverse uses, such as currency exchange, recipes, maps, and art designs.

Curriculum changes

In conversations with Math and English faculty about ILO 1, several curricular changes were noted. These changes respond both to the evolving needs of students, the policy of common course numbering statewide, and the goal of supporting student success.

- ENGLISH: Common Course Numbering[5] has initiated a number of changes in how English faculty teach competencies linked to ILO 1 in C1000 and C1001. It has meant a shift in SLOs along with changes in content and assignments. "We are very much in a time of change."
- MATH: Changes in Math Department in the last four years have been substantial, in response to Common Course Numbering and other factors.
    - All courses from Calculus and below — and even some courses above Calculus — have gone through curricular changes. Some of these changes respond to state policies – e.g., Common Course Numbering, AB 1705, AB 705, etc. Others are driven more internally, based on the experience of faculty and students at CCSF.
    - The Data Science program is new — it started with adapting a course from UC Berkeley and now CCSF offers an AS degree in Data Science (and soon to add an AS-T).

[5] The statewide Common Course Numbering (CCN) system assigns the same course number to comparable courses across all California community colleges to facilitate transfer and reduce excess credit accumulation. The process of aligning CCSF curriculum with the CCN is ongoing.

    - As a result of AB 1705 and AB 705[6], the profile of the student entering Calculus has changed. It is hard for students to apply quantitative reasoning in Calculus without much experience with algebra and trigonometry, skills that they have to pick up along the way. The department offers a plethora of support (including support courses, review modules, and the math lab) to help, but it can be challenging to connect each student to the appropriate support, given their unique needs.
- In Fall 2024, a major redesign of GE outcomes and requirements went into effect, as a result of Title 5 updates and the creation of Cal-GETC. The changes in GE outcomes had a ripple effect on courses throughout the curriculum, including those where ILO 1 competencies are attained. In particular, the outcomes in math classes (in the Math department and other departments) were mapped to their GE Area in a new way, as previously mathematics was a graduation requirement with a single outcome but not a GE Area. What was previously one outcome developed into three distinct GE outcomes. This may have led to more precision or detail in outcome wording at the course level, as well as impacting course-to-program mapping.

Emerging Issues in ILO 1: GenAI

Since the last ILO 1 report, artificial intelligence (AI) has become a central topic in faculty discussions about teaching, learning, and academic integrity. Faculty question the impact of generative AI (genAI) on students' development of critical thinking and information competency, and substantial research is emerging that raises concerns.[7]

Survey of attitudes about faculty use of GenAI

CCSF's Office of Online Teaching & Learning (OLET) surveys faculty and students each semester to help guide improvement efforts. In the fall 2025 survey, both students and faculty were asked a question to help gauge views about faculty use of AI in education.

[6] AB 1705 and AB 705 are California laws intended to increase degree completion by changing placement approaches, leading to more students enrolling directly in college-level Math and English. Source: CCCO Equitable Placement, Support & Completion

[7] Kosmyna, N., Hauptmann, E., Yuan, Y. T., Situ, J., Liao, X.-H., Beresnitzky, A. V., Braunstein, I., & Maes, P. (2025). Your brain on chatgpt: Accumulation of cognitive debt when using an ai assistant for essay writing task. *arXiv preprint arXiv:2506.08872*.

Figure 1: Student survey responses

Students who responded to the survey seem undecided about their teachers mostly falling in the middle, leaning slightly positively, which suggests they are open to it, but may not have strong opinions yet.

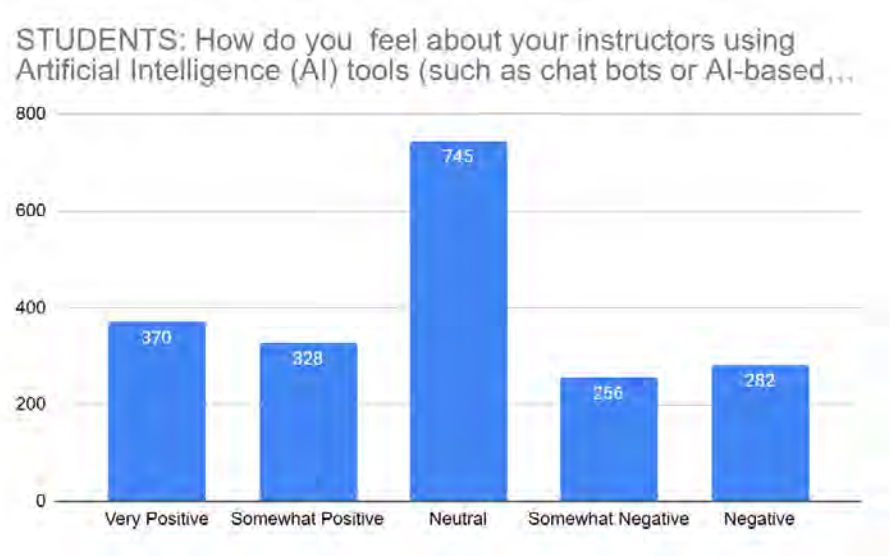
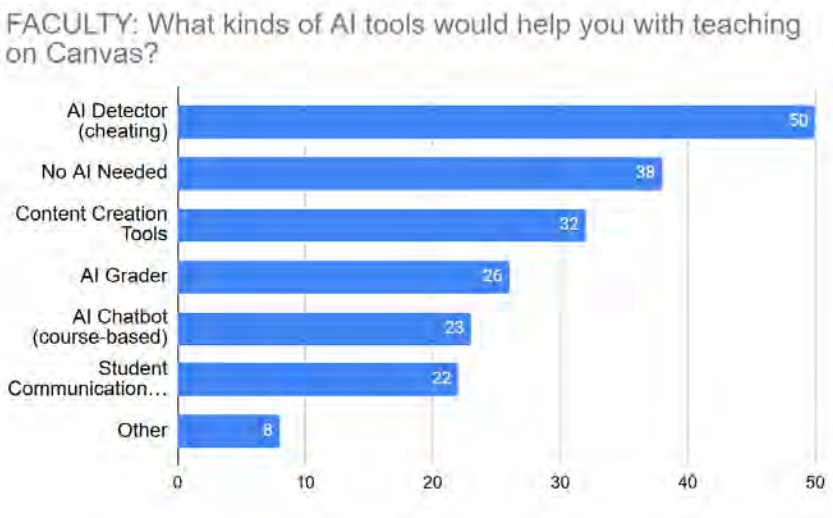


Figure 2: Faculty responses to survey



Faculty are more split on whether to use AI in teaching; some are interested, but others are skeptical or don't feel they need AI at all. The biggest concern is academic integrity, especially detecting AI-generated work; faculty also expressed some interest in tools that could save time, like grading or creating course materials. There's less interest in AI tools that interact directly with students, such as chatbots.

Professional development and policies related to genAI

The College has taken proactive steps to better understand this new and evolving educational landscape, support faculty experimenting with genAI tools, and develop guidance for appropriate use in classrooms. Collegewide improvement efforts and preparation for a changing educational environment related to genAI include the following:

- Artificial Intelligence (AI) Website at CCSF – A centralized resource providing information, guidance, and updates on AI use in teaching and learning. (Artificial Intelligence (AI) | CCSF)

- GenAI Essentials for Employees – An online course developed by the OLET to help faculty and staff "feel more confident, more curious, and better equipped to use AI." The course includes modules on understanding GenAI, ethical concerns, uses in education, and other tools. (GenAI Essentials)
- Faculty Purview on AI in the Classroom – Sample syllabus language allowing faculty to incorporate, limit, or prohibit student use of generative AI in their courses (Faculty Purview on AI in the Classroom).
- AI Community of Practice (CoP): The inaugural CCSF AI Community of Practice (CoP) met in Spring 2025, led by OLET. The second CCSF CoP is currently underway in Spring 2026 and includes both credit/noncredit and full time/part faculty from across the college. The goal of the CoP is for faculty to share and learn how AI tools can serve our students and improve the teaching and learning experience at CCSF. Faculty learn to work with GenAI (chatbots such as Chat GPT/Google Gemini and apps such as Adobe Firefly/DALL-E 3 for generating images) and AgenticAI tools such as Playlab.
- College AI Guidelines – Institutional guidance outlining expectations for the responsible and ethical use of AI tools. Recommendations are a step toward developing future Administrative and Board Policies, which will also be informed by statewide policy recommendations, in development. Artificial Intelligence (AI) | CCSF – describes policies approved by the Technology Committee in 2025.
- Flex Day workshops on GenAI - for example, on October 13, 2025 Flex Day, "AI Policy in Practice: Tools, Models, and Faculty Perspectives" and "AI Tools for Teaching and Learning"; on March 4, 2024, Flex Day, "Beyond the Hype: Balancing the Promise and the Problems of Generative AI in Education" and Rethinking Assessment in the Age of AI , along with the keynote talk, "What Are We Talking About When We Talk About AI Today?".
- Frequent topic of discussion at the Teaching and Learning with Technology Round Table (TLTR) in recent years (2024-26 minutes).
- Countless discussions in classrooms and on Canvas between instructors and students on the merits and pitfalls of using AI for academic work, including the threat genAI poses to students' development of information competency, critical reasoning, and creative thinking.

ILO 1 Alignment and Attainment through Course Assessment Data

The college uses curriculum mapping to align outcomes at different levels at the college. Derived from the data collected in CurrIQunet, mapping reports for instructional outcomes provides a clear infrastructure for assessment. For ILO reports, SLO assessments are conducted and reported on by instructors at the course level (in each section) and mapped upward to program outcomes and then again to institutional outcomes.

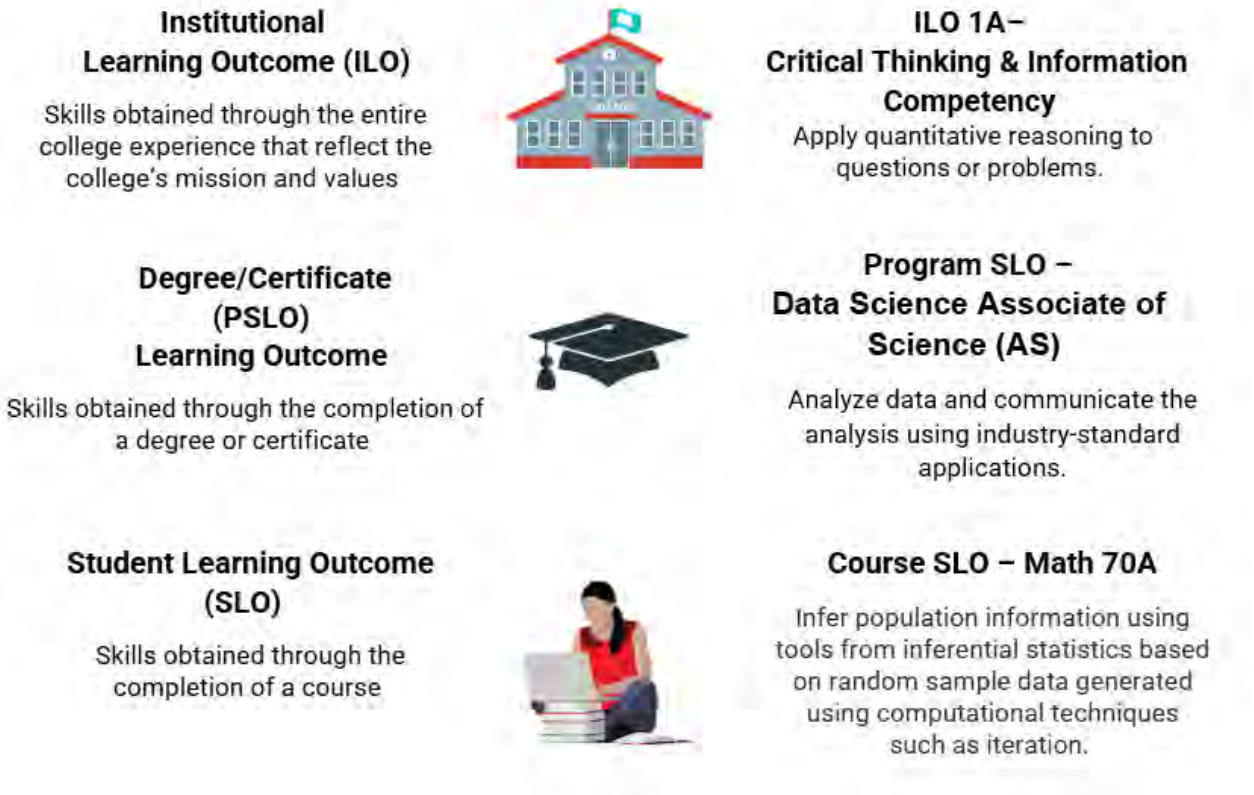


Figure 3: Curriculum Mapping at CCSF - example

Instructional Programs Alignment with ILO 1 Sub-Elements

In fall 2025[8], 331 unique instructional programs (93% of the 365 programs at the college), from 49 departments. In fall 2021, 368 unique programs at CCSF mapped to ILO 1 (92% of a total of 399 programs at the college), from 44 departments mapped to the three ILO 1 sub-elements[9]. The breadth of mapping to ILO 1 is roughly consistent, involving most programs at the college and the majority of departments.

Student Attainment Levels by Sub-Element

Quantitative data from CurrIQūnet, collected at the course section level (CRNs) and aggregated through programs to Institutional Learning Outcomes (ILOs), were compiled in a report generated on November 14, 2025. This report covered data from Fall 2021 through Spring 2025. The findings show that a high percentage of outcomes, between 82% and 85%, were met, representing a slight improvement over the 2022 ILO 1 assessment, which reported a range of 79% to 82% proficiency. Where the outcomes were not met, the majority of assessments (9–10%) were categorized as "developing the SLO," while fewer (5-6%) showed no evidence of proficiency.

[8] CurrIQunet data drawn 10/23/2025
[9] Data from the CCSF Office of Instruction spreadsheet.

Table 1. ILO 1A: Apply quantitative reasoning to questions or problems.

	Total # of Assessments	Percentage of Total Number Assessed
Meets SLO	64,545	82.75 %
Developing SLO	8,634	11.07 %
No evidence of SLO	4,818	6.18%

*2022 report (fall 2021 data) results 79.09% Meets the SLO (improvement of 3.66%)

Table 2. ILO 1B: Locate, evaluate and use information appropriately.

	Total # of Assessments	Percentage of Total Number Assessed
Meets SLO	118,377	82.14%
Developing SLO	18,166	12.61%
No evidence of SLO	7,572	5.25%

*2022 report (fall 2021 data) results 80.71 Meets the SLO (improvement of 1.43%)

Table 3. ILO 1C: Use critical or creative reasoning, including diverse perspectives.

	Total # of Assessments	Percentage of Total Number Assessed
Meets SLO	103,396	84.24%
Developing SLO	12,711	10.36%
No evidence of SLO	6,637	5.41%

*2022 report (fall 2021 data) results 81.61% Meets the SLO (improvement of 0.63%)

As can be seen in the graph below, the greatest improvement was in quantitative reasoning, ILO 1A – compared to both 2021 and 2017 proficiency.

Figure 4: Bar graph of ILO proficiency (% meets SLO), in 2017, 2021, 2025

The improvement in ILO attainment – a trend that has continued since we began reporting on ILOs – is a positive development. At the same time, we do not have the research capacity to answer questions about *why* improvement has occurred. For example, to what extent are improvements due to better teaching practices versus institutional policy changes? Could changes in the student body or the prior preparation of students explain some portion of the improvement observed? What role do student and academic services play in improved learning outcomes? Unfortunately, we cannot answer these questions. However, the discussion of improvement efforts (above) and the library and tutoring initiatives discussed below illustrate the college's efforts to support students to attain proficiency in quantitative reasoning, critical and creative thinking, and information competency.

ILO 1b: Embedded Librarian Project (Revisited 2024)

The Embedded Librarian Project was developed in collaboration with the English Department in response to AB 705 and the need to support underprepared students in completing transfer-level English. Building upon recommendations from the 2017 ILO 1 Assessment Report to expand hybrid approaches to teaching information competency, the project embeds librarians into ENGL 1AS and ENGL C1000/1A sections to provide semester-long research support at the point of need. With approximately 20 hours of librarian support per section, librarians collaborate with instructors on research assignment design, create learning objects and tutorials, teach research instruction, provide one-on-one support, and serve as the primary library liaison for students in the course. Essentially, students have their own personal librarian to assist them in developing information competency skills such as effective search strategies, information evaluation, and ethical use of information (including proper citation of sources).

Four years after the project was highlighted in the 2022 ILO 1 report, outcomes continue to show strong evidence of effectiveness in supporting student information competency skills. In Fall 2023, thirteen of fourteen instructors working with embedded librarians assessed research-related SLOs in CurrIQunet, demonstrating strong faculty participation and improved assessment coverage compared to earlier cycles. Results continually show high student achievement: an average of 84% of students met the assessed research outcomes in ENGL 1A sections with embedded librarians, and 83% met the outcomes in ENGL 1AS sections with embedded librarians. Student survey results also remained consistently positive, with 80% of Fall 2023 respondents and 84% of Spring 2023 respondents reporting that embedded librarian support improved their research skills.

The project continues to serve a high proportion of equity students. In Spring 2023, 62.9% of students enrolled in embedded librarian sections belonged to one or more equity groups, and in Fall 2022 the proportion was 65%. While Argos course success data remains mixed across terms, the SLO and survey evidence strongly suggest that embedded librarians strengthen student mastery of research and source integration skills aligned with ILO 1. Since its pilot five years ago, the program has supported 164 sections across 13 semesters, demonstrating sustained collaboration and scalability. In the Fall 24/Spring 25 year, the program expanded to include English 1A courses without 1AS sections as well as Communication Studies courses 2, 3, and 38. Contingent on continued funding,

future improvements include strengthening research office support for more consistent data analysis and exploring expansion into additional research-intensive disciplines such as Psychology.

Possible Improvements and Future Directions

Based on this assessment and dialogue within the SLO Committee and across the college regarding ILO 1, the following suggestions may be considered to strengthen student proficiency in quantitative reasoning, information competency, and critical and creative thinking (incorporating diverse perspectives).

- Prioritize professional development and dialog on GenAI guidance and policies; monitor the impacts at multiple levels (including changes in industries, changes in instruction, changes in student learning, etc.).
- Provide more linkages and more opportunities for dialog among instructional programs, academic services, and student services.
- Explore approaches to strengthening quantitative reasoning, (or indeed, any of the ILO 1 competencies) across the curriculum[10] could be helpful, including both CTE and non-CTE disciplines.
- Support student navigation of the math pathway choices and career options related to quantitative reasoning.
- Expand opportunities for professional development beyond one-off workshops in ILO 1 competencies, for example, through communities of practice, a "teaching and learning center" on campus, workshops for new faculty on equitable approaches to teaching ILO 1 competencies in general, or other initiatives.
- Cultivate student-centered learning spaces for collaborative learning, supportive of the integration of diverse perspectives.
- Increase emphasis on individual creativity and the links between creative and critical thinking, especially in the age of genAI, across courses and programs.
- Continue and expand efforts to reduce opportunity gaps at the college, in relation to ILO 1 and all areas of the college.

Conclusion or Summary

This assessment of ILO 1 shows continual improvement efforts to support students' proficiency in quantitative reasoning, information competency, and critical and creative thinking. These improvement efforts include professional development, library services, instructional strategies, curricular changes, and approaches to genAI. Embedded librarians and embedded tutors play an important role in supporting student attainment of ILO 1. Most departments at the college offer degrees or certificates that map to ILO 1, indicating broad commitment to this institutional outcome. The quantitative data from SLO assessments, mapped up from courses to programs to ILOs, indicate

[10] In the past, the college had an initiative on teaching writing across the curriculum -- aimed at strengthening a key academic ability that cuts across disciplines – through professional development and dialogue.

an upward trend in student proficiency compared to past reports, with 82% to 85% of students assessed meeting the SLO mapped to ILO 1.

Appendixes

Appendix A: Report Sharing with the College Community

The findings and improvement suggestions in this report reflect the college's ongoing efforts to support student learning aligned with ILO 1. To gather feedback and foster continued dialogue, this report was developed in collaboration with and shared with the following college committees:

Date	Committee	Focus
December 5, 2025	SLO committee	ILO 1 initial discussion (slides)
March 6, 2026	SLO Committee	ILO 1 data discussion (slides)
April 10, 2026	SLO Committee	ILO 1 report approval Minutes (slides)
May 4, 2026	Planning Committee of the Participatory Governance Council	Minutes, (slides)
May 20, 2026	Academic Senate Executive Council (ASEC)	Resolution 2026.05.20.5.d (slides)

Appendix B: ILO 1 Attainment Comparison 2017, 2022 and 2025

Table 4: ILO 1A: Apply quantitative reasoning to questions or problems.

	2017	2022	2025
Meets the Outcome	76.39%	79.09%	82.75%
Meets the Outcome (number of assessments)	10,398	89,549	64,545
Developing the outcome %	15.09%	14.40%	11.07%
Developing Outcome (number of assessments)	2,054	16,308	8,634

Table 5: ILO 1B: Locate, evaluate, and use information appropriately.

	2017	2022	2025
Meets the Outcome	77.08%	81.71%	82.14%
Meets the Outcome (number of assessments)	135,408	152,636	118,377
Developing the outcome %	17.68%	13.79%	12.61%
Developing Outcome (number of assessments)	31,059	26,070	18,166

Table 6: ILO 1C: Use critical or creative reasoning, including diverse perspectives.

	2017	2022	2025
Meets the Outcome	78.25%	81.61%	82.24%
Meets the Outcome (number of assessments)	126,787	143,684	103,396
Developing the outcome %	16.05%	12.91%	10.36%
Developing Outcome (number of assessments)	25,998	22,735	12,711

Appendix C: Notes from ILO 1 conversations with faculty in Math, English, and Transitional Studies

As Math and English courses quite directly teach the elements of ILO 1 — quantitative reasoning in Math, critical and creative reasoning and information competency in English — we conducted a group interview in both departments. To get the noncredit perspective on teaching Math and English, we also talked with Transitional Studies faculty teaching those subjects. Conversations: Math on January 27, 2026; English on February 3, 2026; Transitional Studies on March 18, 2026.

The following is a synthesis of main points from these conversations.

ENGLISH Department: (synthesis)

- Promising practices and improvements in critical thinking development:
    - Fostering trust and belonging in the classroom culture supports developing critical thinking, creating a space where student have different points of view and can still think critically together about "those really explosive issues that are happening right now."
    - Project-based learning is a helpful approach. Creativity really contributes to critical thinking -- students often learn best through creating something with their hands, and that gives them something concrete to write about.
    - Focusing on relatable topics and encouraging students to bring in their own lives, identities, and experiences supports critical thinking. "The more we do that, the more we invite students to respond from their specific identities and backgrounds, I think the more critical thinking happens as well."
    - Instructors teach critical thinking skills related to specific reading and writing assignments, such as how to read statistics critically.
    - Reading and Writing Center helps with critical thinking, by breaking down the reading process and making it visible. It helps students develop strategies for asking questions.
    - Breaking down the skills in reading and writing, like pre-reading, look for evidence in the text, making charts, discuss it (for the social dimension of learning), a diversity of in-person exercises to develop critical reading and writing skills.
    - Common Course Numbering has initiated changes in how English faculty teach competencies linked to ILO 1, including new SLOs and other changes in course content and assignments. "We are very much in a time of change."

- Promising practices and improvements that support students in learning information competency:
    - Assignments and instruction encourage students to develop the ability to recognize positionalities and integrate diverse views and sources.

    - All English C1000 (formerly English 1A) includes library research component assignments, including library workshops on skills like utilizing library databases, selecting and evaluating sources, documenting sources, etc.
    - "I've had the pleasure of working with an embedded librarian ... for a number of semesters (in C1000 and 1B). And like the embedded tutor, I feel like I get better at utilizing their help each time. We brainstorm how to reach out to students, and I had them start posting announcements a bit more often.... In the last couple of semesters, I've been sending personalized emails [connecting specific students to the librarian for specific types of help]."

- Professional development in the department:
    - A faculty member known for her equity work will be leading a Teaching and Learning Academy toward the end of the Spring 2026 semester, focused on equitable practices in teaching reading and writing.
    - English used to have an equity-focused Community of Practice, but not since the layoffs in 2023 (2022?) -- as an impacted department, English has not had the staffing to be able to run a Community of Practice. However, they look forward to returning to the work of their ECoP groups in the future.

- Generative AI is having a large impact in English.
    - Faculty have to spend time on verification, for example, reviewing versions and edits to ensure that students' writing reflects their own work.
    - Faculty noted that the challenge is not just that students delegate their writing tasks to GenAI; it's that GenAI has also led to the idea that it's not important to learn how to write, at all — that a machine can do it instead.
    - When students use GenAI, the work looks "done" and packaged, when in fact it has just begun. Faculty see a challenge in helping students look past the polish. "That's a challenge for us, that research will still be a human activity, that figuring out what you've found or what AI has for you is still your job, and knowing how to use what's been found – whether you found it or your AI agent found it – it's still your job and it's still your thinking process."
    - Faculty emphasized a focus on the process over the product. The grading scheme can reward process steps to emphasize that. This is especially important in light of GenAI, which can produce a "a good enough paper" on its own.
    - The assessment *is* the practice, in writing. "In some areas, the thing you do as an assessment, that's all it's doing, assessing. Whereas for us, the thing we do as assessment is actually the practice that makes them better at it. [Contrast to exams – the point of an exam is not to make a student good at taking exams.] But if you do a lot of writing, you do get better at writing."

MATH DEPT: (synthesis)

- Changes/improvements in math instruction:

- Curricular changes in the math department in the last four years have been substantial. This includes all courses from Calculus and below, and several courses above Calculus also.
- Common Course Numbering is also leading to some changes in the department in course outcomes and has raised a discussion about the appropriate units for math courses.
- Embedded tutors have had a positive impact on student learning. It gives them a more direct link to the math lab and other support. "Having an extra person there has been really positive."
- AB 1705 and AB 705 — it has changed who is entering calculus. "I think it's more difficult for some of those students to apply some of the reasoning, because they don't have as strong experience with algebra and trigonometry that maybe they would have had in the past." These become skills that they have to pick up along the way through the co-requisite support courses and the math lab. One example given was student use of the online math lab: "Do students know how to find out what video they need to watch to help them understand what they are missing in class? I think that's kind of a gap right now." A risk in shortening the math sequence is that students have less time to build confidence and skill in navigating.
- Various instructors are using new technologies to teach quantitative reasoning — homework systems, OER, Jupiter notebooks, as ways to apply the content. "A positive that I have noticed over the last couple of years is the different ways instructors have incorporated newer technologies; it could be everything from homework systems to technology platforms ... like Jupiter Notebooks, providing students other ways of applying the content." "A lot of instructors have gone out of their comfort zones to learn technologies and incorporate them into their workflows, so I think students also see that as a positive. It adds something a little fresh to the course."
- The CCSF Data Science program is relatively new and ranked 7th in the country (at least by one source). The Data Science program started through faculty adopting a course from UC Berkeley in 2020, and now the department offers a local degree in Data Science (and is working statewide to establish an AST).
- A lot of classes support students in applying quantitative thinking to real world problems — for example, Business Math, Statistics, and Data Science. Some students do their own data projects.

- **Math pathways**: We have different math pathways. Faculty express some concern about whether enough students are entering the right pathway for their goals.
  - A lot of students are putting themselves into the 3-unit liberal arts Math 70, without even trying the higher-unit courses that could open up a career in STEM — faculty are concerned that they are cutting themselves off from options. There is high demand for Math 70 — from 4 sections pre-pandemic to 12 sections now.
  - A minority of students are believed to have educational plans, so that adds to the concern that students may not know which math they need for the classes they want to take later. At the same time, where in the past, students often put off taking math until a later semester; the department has seen more students taking math in their first

semester or first year (yet often taking the minimum units of math).

- Professional development /Communities of Practice — we break out by groups as needed.
    - The Math department has one Community of Practice (COP) for interested Stats faculty to talk about evaluation and scoring, for more consistency and commonality.
    - They also have one for Math 108, Data Science — weekly work together to edit and plan, among the instructors, tutors and TAs (with 4+ faculty and about a dozen math lab staff and student tutors). "Initially we were getting a little bit of funding to be able to run that community of practice, but now it's just part of how we teach it. It feels less like an extra obligation and just, like, we're sharing in the work we would normally have done alone."
    - There have also been groups that gather based on modality (in person or online), or to respond to other needs, as they arise.
    - The Math COP is funded through Student Equity, which has been going on for several years. "The focus is on statistics this past year, which has been great, because then we can at least agree on the types of questions for assessments, the types of activities, homework, [etc.], so it's great to have that conversation going, and I think it would be wonderful to have one for calculus eventually in the future." They do already have a calculus activities group, developing activities for calculus in the physical world.

- **GenAI:** The department doesn't have many 100% online courses, but in 100% online it can be hard to know if AI is playing a role in assessments. In general, it's hard to keep up with the changes in GenAI. The main strategy of the Math department, to dissuade student misuse of GenAI, has been to try to maintain a human connection and to offer a good quality course with a small number of students (around 35). There is some interest among faculty in positive uses of AI, for example to establish consistency in rubrics, and more professional development about AI.

TRANSITIONAL STUDIES DEPT. (synthesis)

March 18, 2026 – conversation with five Transitional Studies faculty who teach noncredit math and English for the high school completion program.

Critical thinking:

- Faculty report that nearly everything they teach is within the framework of critical thinking. There is also a strong focus on knowledge acquisition, the base of the pyramid, because these courses are for high school completion.
- Faculty also teach students how to map and outline ideas, and as a result, their reading comprehension is improving "because they are not lost in the details." One instructor mentioned a student who is also applying this technique in other courses and reported back that "now she can concentrate on the main concepts instead of just paying attention to all those details that she doesn't need to memorize."

- Examples of critical thinking skills and approaches that are taught include the rhetorical triangle of ethos, pathos, logos; logical fallacies; propaganda; nonverbal communication; making predictions; annotation of reading, including social reading with Harmonize.
- Faculty teach the five-step writing process and use it to help students see what they have to fix in their writing. Writing is a critical thinking skill.
- One instructor described the importance of teaching novels, not just short stories. The novels give an opportunity to deepen critical thinking, including connecting the themes to the real world – for example, linking *1984* to questions of surveillance now, or reflecting on dictatorships of the past (Trujillo) and present, in relation to *How the Garcia Girls Lost Their Accent*.

Information competency:

- Library online workshops are helpful for information competency.
- Promoting information competency – faculty described teaching paraphrasing techniques, yet changing the structure of the sentences, so if students do research, they have to paraphrase their source and submit the source alongside their own work. "I have noticed that students are more able to give evidence in their own words."

Quantitative reasoning:

- Quantitative reasoning is key to math, sciences, and economics courses. For example, students learn to apply ratios, proportions, percents, and variables in different ways -- in recipes, in maps, in currency, in art designs. Students use percents to simplify data to apply to situations they may face in real life, for example, when deciding if a discount is worth it. They use variables to represent the unknown. Both creative and critical reasoning is needed to evaluate data credibility, by substituting data and testing. Students come in at quite varied levels of preparation, so faculty try to meet them where they are.
- Also in Economics, faculty teach about supply and demand, labor, entrepreneurship, opportunity costs, and the production possibility curve. Economics is the study of choices, and they learn that through projects that involve getting information, making graphics, and making recommendations based on that. There is an integration of information competency, critical thinking, and quantitative reasoning in these projects.

Applied and project-based learning in TRST:

- Faculty find it especially helpful with this student population to make the learning applied – for example, helping them see why they might need math (for example, in budgeting or in making change or selecting a credit card).
- Some faculty do science experiments, live or on video, and invite students to make predictions then explain what happens, using critical thinking. They also do exercises with science in everyday life too – for example, in explaining the function of the fluid components in brakes. Some faculty also use science interactives and simulations from educational websites.
- Faculty described project-oriented learning assignments, like one on food labels in Health Ed, or one on biomes in Ecology. Some faculty also incorporate game-like activities within the projects, for example, students create a descriptive slide of biomes and create a guessing game with other students.

- Faculty described critical thinking assignments that connect to current events, such as “Science in the News.”

GenAI:

- In part to respond to GenAI, one instructor described improvements to the type of questions they ask students, phrasing questions so that students integrate the assignments with their own experiences (instead of taking something from the Internet or from GenAI). Others also gave examples of how they have done this, noting the importance of creating questions that everyone can give a unique answer to, like finishing a story in their own way or creating propaganda cartoons of their own (in a unit on propaganda).