

## Institutional Review of ISLOs/GESLOs

Assessment of student learning outcomes (SLOs) is an ongoing initiative at Southwestern College to improve student learning. The Learning Outcomes and Advisory committee (LOAC) supports this initiative through best practices in planning, assessing, evaluating, analyzing, and reporting of SLOs. The ISLO/GESLO report summarizes the findings of the LOAC that assessed and discussed the learning of students at SWC during Spring, Summer, and Fall 2020 at an institutional level. It contains the analysis and recommendations of liaisons of the LOAC that represent all departments and schools on campus. The report serves as a resource for faculty and administration that want to take identified actions and evidence-based decision-making to improve curriculum, programs, and student services.

### Executive Summary:

#### Overall Institutional Learning Outcome (ISLO) results

1. Overall assessment results of Southwestern College students show students scored on average “High Proficiency” for all ISLO topics meeting institutional expectations of learning.
2. ISLO 12 “Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions” showed impacted learning during the pandemic and transition to remote instruction. The LOAC recommends professional development for faculty to help them address contemporary issues important to our students. This will increase student interest and student engagement and should promote student success. Since these topics intersect with various departments, collaborative teaching was suggested which can enhance student learning and improve learning outcomes for ISLO 12
3. ISLO 16 “Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural and aesthetic qualities of works of art” exhibited consistent equity gaps throughout the last years and should use program review to improve learning outcomes through creative proposals and institutional resource allocations.

#### Overall General Education Learning Outcome (GESLO) results

4. Based on the GESLO assessments, students, on average, are more than proficient in all assessed learning outcomes scoring between 3.56 and 4.68 out of 5 (highly proficient) for learning outcomes related to general education requirements.
5. Six GESLOs were identified to have performance gaps and impacted learning. These GESLOs foci on the analysis of science and arts (GESLO Area 2, 4, 5, CSU GESLO B and SWC GESLO A and B<sup>1</sup>). The LOAC recommends
  - a. cross-disciplinary teaching strategies and professional development to improve student interest, engagement, retention, and success.
  - b. to expand tutoring services and the power study program that provides peer instruction and tutoring to students.

#### Disaggregated data – Assessment discussions to improve outcomes with an emphasis on equity

6. Modality analysis showed that transition to remote instructions did not cause any substantial negative impacts on learning outcomes except for ISLO 6 and GESLO A related to quantitative reasoning and critical thinking.
7. Data disaggregated by age revealed that especially students of age 19 or less exhibited performance gaps and impacted learning.
8. Gender analysis shows that male students experience the most disproportionate impact with respect to student success. Performance gaps are observed for 12 out of 31 assessed SLOs.
9. African American, Native American, Hispanic, and Hawaiian/Pacific Islander ethnicities had the most equity gaps with respect to ethnicity.

Program review, professional development such as the Advanced Equity Teaching Academy (AETA) and Work-Based Learning (WBL), improving tutoring and support services, and utilizing the support groups of guided pathways can all help reduce performance gaps of specific subgroups and improve student achievement.

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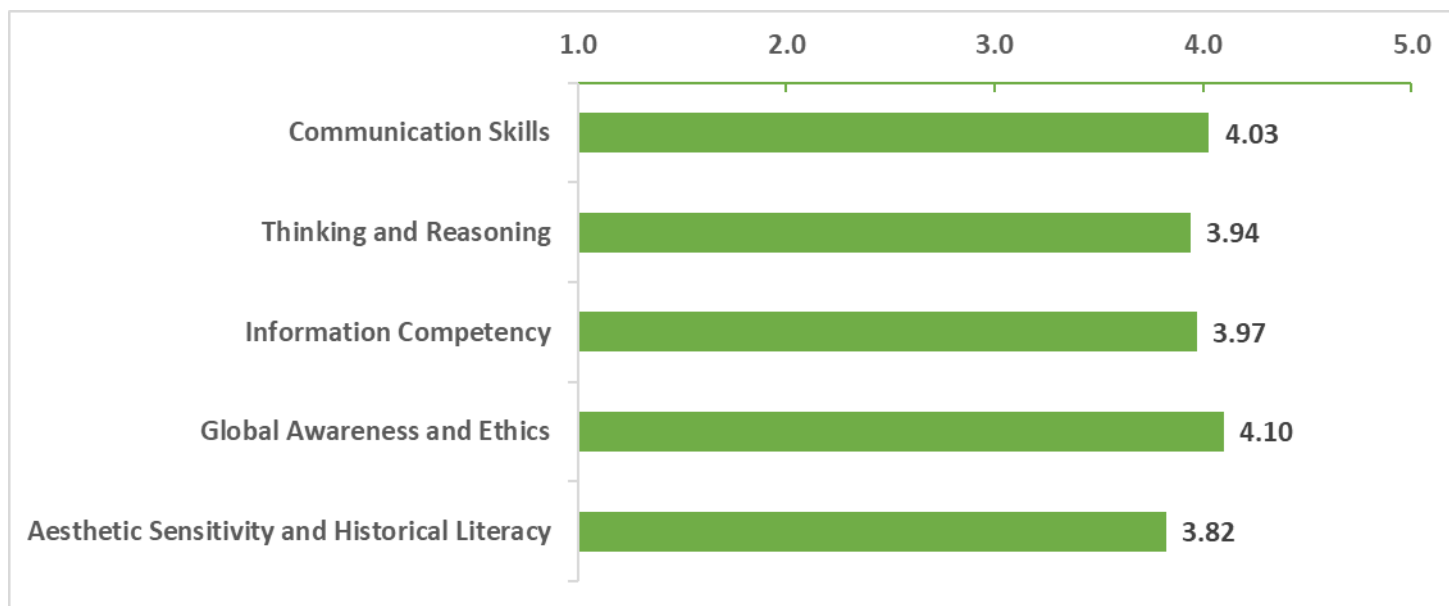
<sup>1</sup> Full name and definition of these SLOs are found in appendix A

## ISLO/GESLO Full Report

In alignment with the College mission and strategic priorities, the college annually reviews and discusses SLO data for use in institutional dialogue as it relates to the improvement of student learning, student achievement, educational quality, and institutional effectiveness. Assignments that probe proficiency of learning outcomes were designed and scored by faculty across all divisions. The campus utilizes a five-point rubric for assessing student learning outcomes. The rubric includes the following scores: No Proficiency (NP), Low Proficiency (LP), Proficiency (P), High Proficiency (HP), and Mastery (M). Scores in the no proficiency and low proficiency area reflect very basic understanding and are used as indicators to measure if learning is impacted. Faculty and departments were given free choice on how to assign each score of the rubric to an assessment of a learning outcome. The LOAC analyses and discusses the assessment data and shares its major findings in this report. In March 2020, SWCCD switched to remote instructions as a response to the COVID-19 pandemic and remained mostly remote during the Fall 2020 semester. The report contains a compilation of results, analysis, and discussion of SLO data collected during the unusual year and under modified instructions. The LOAC is aware that both assessment of data and evaluation of learning outcomes carry certain limitations when comparing face-to-face courses with remote instructions, especially for courses that require hands-on experience. Discussion of learning by modality (face-to-face versus remote) was therefore included in the results of this report. Further, COVID-19 might have had an inequitable impact on students of different races/ethnicity, gender, and age. Disaggregated data with respect to race, gender, and age is also provided in this report. Raw data used for the analysis can be obtained by request. The inequitable impact can also have other reasons such as socio-economic, for example, some students do not have reliable internet or access to their own computer to do academic schoolwork. Socio-economic factors are not discussed in this report.

### Overall ISLO results

Institutional student learning outcomes (ISLOs) are learning outcomes that describe general skills and transferable knowledge that all students are expected to become proficient in by the time they leave Southwestern College. Figure 1 shows the average scores per overall ISLO topic (each topic has 2-5 assigned ISLOs; see appendix A).



**Figure 1: Average ISLO scores per topic.** Shown are the average scores for the ISLOs grouped by topic. Using the scoring rubric, a 1 was assigned to no proficiency, a 2 for low proficiency, a 3 for proficiency, a 4 for high proficiency, and a 5 for mastery. Scores for each topic were averaged over the individual ISLOs. Global Awareness and Ethics had the highest average score, while Aesthetic Sensitivity and Historical Literacy scored lowest on average. Southwestern College students on average score high proficiency across all categories of institutional learning outcomes.

Southwestern College students recorded very similar scores of about 4.0 on average for each ISLO topic. To achieve a score in the 4 to 5 range of the rubric, students had to exhibit excellent skills and content mastery ranging from progressive analytical skills to developed critical thinking and communication skills. Figure 1 shows that the average score fell into the high proficiency area which means students performed well and that instructions were in general effective in promoting student learning and success. Students, on average, consistently demonstrate high competencies, knowledge, and skills consistent with the education goals set by Southwestern College through ISLOs. As an anecdotal example, this year two Southwestern College students received a second-round bid to the invitation-only 75<sup>th</sup> National Debate Tournament, a direct exhibition of critical thinking and communication skills developed and trained at Southwestern College. The highest average scores were observed for Global Awareness and Ethics preparing students to be valuable and engaged members that will contribute to improving the community. Communication skills, Information Competency, and Thinking and Reasoning all closely follow and show high proficiency as well. Aesthetic Sensitivity and Historical Literacy earned the lowest average score at 3.82, yet still demonstrating strong student learning. The result is consistent with the average scores obtained in assessments of 2019, an indication of continued quality instruction and learning at Southwestern College.

A more detailed analysis to assess learning proficiency can be done by examining the performance of the individual ISLOs (see appendix A for a list of ISLOs) for each topic. Based on the College's expectations for learning and achievement, the LOAC uses a criterium where a combined score of low proficiency (LP) and no proficiency (NP) of <15% means that learning outcomes are generally met. This measure is a direct measure of overall performance, and in this report refers to a performance gap if the combined score is less than 15%. Analysis of 72,959 data points was used to assess the 16 ISLOs. The combined scores of low and

	Communication Skills			Thinking and Reasoning			Information Competency		Global Awareness and Ethics				Aesthetic Sensitivity and Historical Literacy			
ISLO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sum of LP and NP	8.4	11.9	13.1	13.1	12.6	12.6	13.6	10.1	5.9	6.9	11.6	22.7	14.6	13.3	12.8	15.4
Impacted Outcome?	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	YES
Data Points	3092	14509	5288	12273	17683	4926	4724	1332	1144	1788	1624	198	48	1562	837	1920

no proficiency were calculated and compared to the threshold of 15% (results are shown in Figure 2).

**Figure 2: ISLO assessment on learning impact.** Shown are the individual learning outcomes for the ISLO grouped by topic. For each ISLO the sum of low proficiency and no proficiency was calculated. If the sum is greater than the threshold of 15%, then learning is impacted. ISLO 12 "Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions." and ISLO 16 "Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural and aesthetic qualities of works of art." exhibited impacted learning.

Overall assessment results of Southwestern College students show that for most ISLOs learning outcomes were met. ISLO 12 "Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions" and ISLO 16 "Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural and aesthetic qualities of works of art. " had a combined score of no proficiency and low proficiency above 15%, hence learning was impacted. The LOAC discussed how to improve learning outcomes for ISLO 12 and 16.

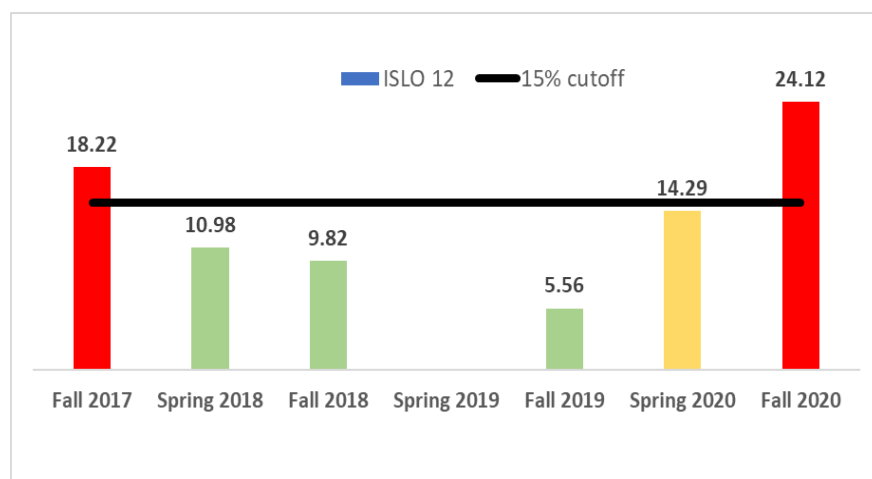
ISLO 12 directly relates to global issues including looming catastrophes our society faces. For example, the carbon footprint and global warning are a current hot topic (no pun intended) and require ethical decision making which affects not only decisions for

the Chula Vista community but for the planet overall. Climate change also exacerbates water shortage and drought and makes vegetation prone to fire. These are all connected issues that California has been fighting for years. Research has shown that student achievement, self-efficacy, and student-learning outcomes improve when student-centered practices such as active learning and real-world project-based learning. The LOAC recommends professional development for faculty to help them address contemporary issues important to Southwestern College students. This will increase student interest and student engagement and should promote student success for ISLO 12. However, to learn and successfully implement new instructional practices, faculty need resources, training, collaboration, and potentially mentoring. Currently, the advanced equity teaching academy (AETA) and the work-based learning (WBL) initiative provide training, resources, and mentoring for culturally responsive teaching and teaching with a focus on career readiness, respectively. The LOAC recommends more targeted professional development services to expand the pedagogical content of faculty. Since these topics intersect with various departments, collaborative teaching was suggested which can enhance student learning and improve learning outcomes for ISLO 12. Additional data for ISLO 12 “Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.” is shown in Figure 3 as well as a time course of the combined score of LP and NP over the last years.

### ISLO 12 Assessment 2020

Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.

Mastery	31.31%
High Proficiency	31.31%
Proficiency	14.65%
Low Proficiency	11.62%
No Proficiency	11.11%



**Figure 3: ISLO 12 shows impacted learning in 2020.** Shown on the left are the percentages for each of the five rubric entries for the overall 2020 data. A timeline for ISLO 12 is also included. The data from Fall 2017 and Fall 2020 show scores higher than the 15% criteria of combined LP and NP (see bar graph on the right, red bars mean that the combined percentage was over the accepted threshold, green means it was below, and yellow means it was close to 15%). For all other terms, the combined score was less than the cutoff.

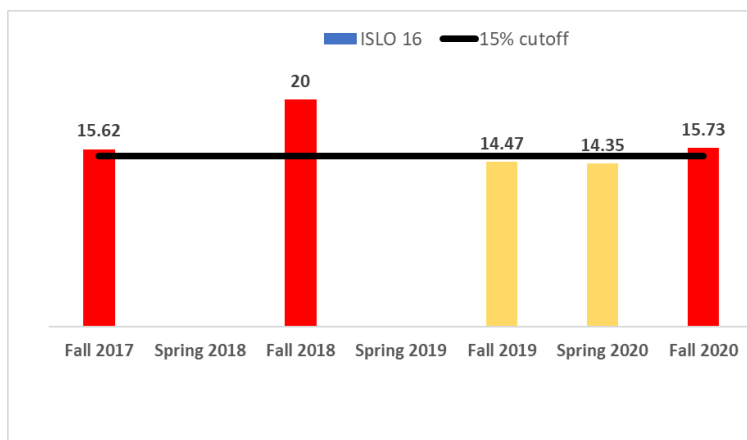
The time course shows that before Spring 2020 and the start of the pandemic, learning with respect to ISLO 12 was not impacted. In Spring 2020 the combined score increased from 5.57% to 14.29%, very close to the threshold 15% cutoff mark. In Fall 2020 learning is clearly impacted with almost one in four students scoring low or no proficiency. The time-course data suggests that there seems to be a direct impact on ISLO 12 related to COVID-19. Since COVID affects students not only inside but also outside the classroom, there could be a direct correlation between external student hardships and student learning. The LOAC did not have any data available on the impact of COVID on Southwestern College on students outside the classroom. Student services have provided extensive student support outside the classroom to alleviate hardships and barriers caused by COVID. Data collection and analysis of the effect of student services on student success is work in progress (not by the LOAC) and might be made available to the Institution in a separate report. This report might show how students utilize the resources available to them on campus. From an instructional point of view, tutoring services and the power study program PSP (data shows that these services improve student learning) could focus on courses that assess ISLO 12 and hence could improve ISLO 12 learning outcomes. With the implementation of the California Guided Pathways Project (CAGP), support groups could also monitor outcomes of ISLO 12 during the semester and provide interventions to “keeping students on the path”. In terms of assessment data points, ISLO 12 has only 198 data points and requires more CSLOs that align with it to increase sample size and reduce error margin. Improving mapping of CSLOs to all ISLOs and increasing data points for assessment is an ongoing effort of the members of the LOAC in collaboration with faculty of all departments.

ISLO 16 "Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural and aesthetic qualities of works of art." also showed impacted learning. Time course data for ISLO 16 is shown in Figure 4 and shows values of around 15% and hence performance gaps throughout the semesters.

### ISLO 16 Assessment 2020

Analyze and critique the philosophical, technical, historical, cultural and aesthetic qualities of works of art.

Mastery	40.57%
High Proficiency	25.36%
Proficiency	18.65%
Low Proficiency	7.76%
No Proficiency	7.66%

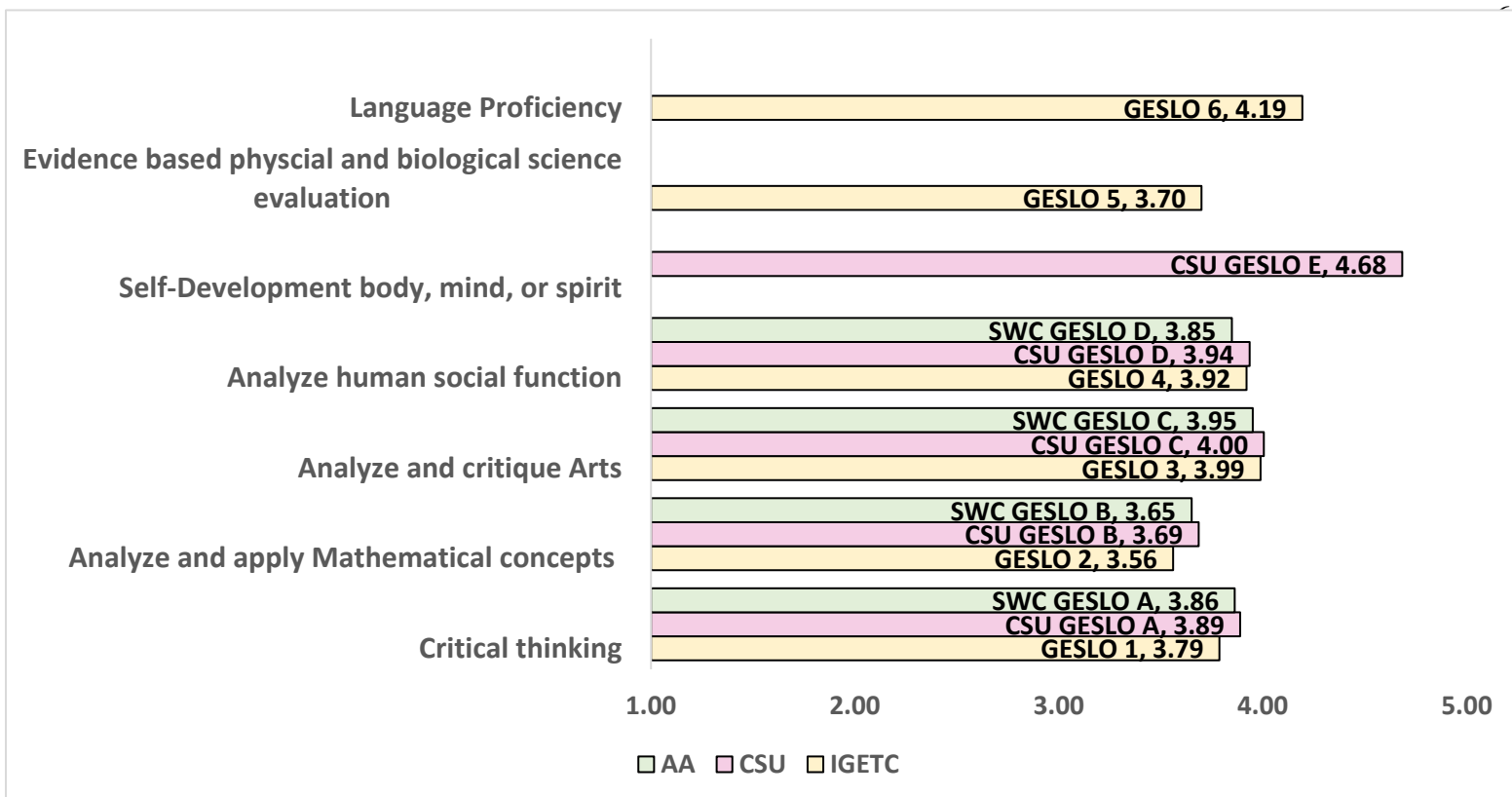


**Figure 4: ISLO 16 shows impacted learning.** Shown on the left are the percentages for each of the five rubric entries for the 2020 data. A timeline for ISLO 16 shows that throughout the semesters ISLO 16 shows impacted learning or values close to impacted learning (same meaning for colors as in figure 3)

Despite current efforts, the performance gap for ISLO 16 has remained. Almost all assessments of ISLO 16 stem from courses of the Arts department, except one course of American popular music and one ballet pointe dance course. The liaisons of the LOAC have worked with the performing art department which includes music, theatre, and dance, to increase the number of assessments for ISLO 16, which is expected to show more assessment points for the Fall 2021 and Spring 2022 data. Larger data sets not only allow higher confidence into whether a persistent performance gap exists, statistically speaking, but represent a more objective snapshot of the distribution of assessment scores of Southwestern College students for ISLO 16. In courses that are currently mapped to this ISLO, students are expected (to name a few examples) to evaluate contemporary and art-historical work, drawings, figurative art, and color, as well as examine contemporary ceramics and jewelry design. The learning outcome of ISLO 16 is therefore very course-specific, and to provide overall recommendations requires a detailed look at existing best practices of teaching and learning, and how these best practices of teaching are utilized to improve student success. General recommendations of professional development were proposed which focus on collaborative, interdepartmental initiatives focused on student learning outcome improvements and success. The performance gap of ISLO 16 should be further addressed through program review. Program review is intended to improve the overall quality of existing instructional programs and will allow faculty and administrators to submit creative proposals and resource allocation requests tied to measurable interventions and outcomes. Institutional research will be a great resource for additional data requests and liaisons can coordinate to develop and implement action plans which ideally lead to increased student achievement.

### Overall GESLO results

General Education Student Learning Outcomes (GESLOs) are learning outcomes that are linked to categories of study within the three general education plans at Southwestern College, namely the CSU, IGETC, and Associate Degree (AS or AA) general education plans. In this document GESLOs for the CSU education plan are labeled CSU GESLO A-E, GESLOs related to IGETC are named GESLO Area 1-6, and GESLOs for associates degrees are referred to as SWC GESLO A-D. Detailed descriptions of the learning outcomes can be found in appendix A of this document. It is important that students that graduate with an associate degree and/or transfer to a four-year college are well prepared and core skills are cultivated. Proficiency in GESLOs means that students achieve learning in general education courses required for any degree program and transfer to 4-year colleges. Assessment of the GESLOs used the same methodology and rubric described earlier that was used for the ISLOs. Figure 5 shows the average proficiency scores using a scale of 1 for non-proficient, and 5 for mastery. For each general education plan, almost 40,000 data points were analyzed.



**Figure 5: Average GESLO scores per Learning Outcome.** Shown are the average scores for the GESLOs for AA, CSU, and IGEC, and grouped by category. Using the scoring rubric, a 1 was assigned to no proficiency, a 2 for low proficiency, a 3 for proficiency, a 4 for high proficiency, and a 5 for mastery. An average all GESLOs showed scores greater than 3, since a score of 3 means proficient, all students scored on average higher than proficient. Across all GESLOs, self-development of body, mind, or spirit scored highest while analysis skills overall but especially in mathematics, physical sciences, and biological sciences scored lowest.

Based on the GESLO assessment results in Figure 5, students, on average, are more than proficient in all assessed learning outcomes scoring between 3.56 and 4.68. Current curricula aligned with shared institution-wide learning outcomes (GESLOs) and helped students acquire and demonstrate (on average) highly proficient learning in general education and essential transfer skills. During the pandemic, students experienced additional stress throughout the semester compared to a regular, non-pandemic semester. It is therefore encouraging to see that students exhibited the highest scores for self-development for CSU GESLO E. This SLO was designed to help students develop, among other things, physical and mental health as well as stress management strategies. The lowest scores were observed for analysis-based outcomes and evidence-based evaluation especially in mathematics, physical sciences, and biological sciences, but also related to Arts. It should be noted that scores around 3.6 are between proficient and highly proficient, indicative of an overall good understanding of successes and limitations of nature, mathematics, statistics, computer science, life sciences, and physical sciences by students. The LOAC discussed that these analysis skills are complex, sophisticated, and advanced compared to other SLOs, and that faculty teaching analysis skills (for example related to Arts) should receive cross-disciplinary training and professional development that improve student engagement and learning. Concrete examples of improving student success could center around transforming experiences that connect academic learning to real-world experiences. These experiences enhance student motivation, retention, and academic success and could include highlighting more student artwork or utilizing the synergy of cross-disciplinary teaching, for example, engineering projects that incorporate ecology to combat global issues such as water shortage. These inter-department real-world experiences actively link the current curriculum to future careers and have been shown to effectively increase student achievement.

The LOAC also evaluated (using the 15% threshold combined score of low-proficiency and no-proficiency) performance and checked if learning is impacted for any GESLO. The results are shown in Figure 6.

SLO	IGETC						CSU					AA			
	GESLO Area 1	GESLO Area 2	GESLO Area 3	GESLO Area 4	GESLO Area 5	GESLO Area 6	CSU GESLO A	CSU GESLO B	CSU GESLO C	CSU GESLO D	CSU GESLO E	SWC GESLO A	SWC GESLO B	SWC GESLO C	SWC GESLO D
Sum of LP and NP	14.8	21.4	12.0	15.2	15.1	5.8	12.8	15.8	11.3	14.6	2.6	15.1	15.3	11.4	14.8
Impacted Outcome?	NO	YES	NO	YES	YES	NO	NO	YES	NO	NO	NO	YES	YES	NO	NO
Data Points	3966	1540	7369	5588	15883	1744	5311	17686	10020	6068	420	7907	11697	8678	8497

**Figure 6: GESLO assessment on learning impact.** Shown are the individual learning outcomes for the GESLO grouped by plan. For each GESLO the sum of low proficiency and no proficiency was calculated. If the sum is greater than the threshold 15%, then learning is impacted. GESLO Area 2, 4, 5, CSU GESLO B and SWC GESLO A and B exhibited impacted learning. These GESLOs focus on analysis of science and arts.

Six GESLOs were identified that had impacted learning and hence a performance gap. For each of the GESLOs, professional development and program review can help increase student achievement. For the IGETC GESLOs, GESLO Area 2 “Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.”, GESLO Area 4 “Analyze and critique data, perspectives, trends, concepts, and issues pertaining to human social function and experience.” and GESLO Area 5 “Examine and evaluate issues related to the physical and biological sciences from an evidence-based perspective and use in applied context.” had scores larger than the 15% threshold. As discussed above, these GESLOs related to analysis skills show lower proficiency scores and outcomes in the assessment due to the complexity of the SLOs. Cross-disciplinary teaching strategies and professional development to improve student interest, engagement, retention, and success should be provided. Liaisons of the LOAC are also a great resource to departments to discuss department and course-specific strategies to improve GESLO Area 2, 4, and 5. Further, a score of 14.8 for GESLO Area 1 “Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.” also gives the additional need for concern, and outcomes can be improved by utilizing existing resources such as the online writing lab and tutoring services.

For the CSU GESLO’s only CSU GESLO B “Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data in order to effectively problem-solve issues in a variety of contexts” was impacted. Training and professional development that targets GESLO Area 2 and 5 should also improve learning outcomes for CSU GESLO B. Southwestern College also provides training in work-based learning and includes many proven teaching methods and interventions for students. For example, activities such as field trip-type activities may connect course curriculum to real-world experiences, and hence can improve student engagement and success within courses. Additionally, it would help to expand the power study program that provides peer instruction and tutoring to students. Last year’s program review provided additional funding to the power study program, and strategic allocation to tutors helping with GESLO Area 2,5 and CSU GESLO B should improve outcome scores.

For the AA GESLOs, SWC GESLO A “Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.” and SWC GESLO B “Examine issues related to the natural sciences from an evidence-based perspective and use in applied contexts.” are impacted. SWC GESLO A outcomes are expected to be somewhat lower due to the complexity and sophistication of the skill but can be improved by utilizing existing resources such as the online writing lab and tutoring services at Southwestern College. Strategies to improve SWC GESLO B were discussed above in the discussion of GESLO Area 2,5, and CSU GESLO B. SWC GESLO D “Identify and analyze data, perspectives, trends, concepts or issues pertaining to human social function and experience.” with a score of 14.8 is also close to the threshold and outcomes could improve by providing tutoring and expanding the power study program support. Further, guided pathways support groups can monitor student outcomes throughout the semester and provide targeted interventions that “keep students on the path”.

## Disaggregated Data - Modality

Due to the impact of COVID-19, classes that are traditionally offered in-person were shifted to remote instruction. Remote teaching necessitated by the COVID-19 pandemic presented unique challenges for the assessment of learning outcomes for faculty and students. Modification to assessments, especially where learning outcomes were related to hands-on laboratory experiences, were made by individual faculty members and differed in nature to assessments performed in face-to-face instructions. For example, a microbiology skill of pipetting in a wet lab might need modifications when performed in a computer simulation instead. The validity and accuracy of measures of learning efficiency during the pandemic were not discussed in detail during LOAC meetings but could be addressed in future reports.

	SLO	FALL 2019	FALL2020	CHANGE
ISLO	ISLO 1	11.24	7.12	4.12
	ISLO 2	12.98	11.61	1.37
	ISLO 3	15.91	9.75	6.16
	ISLO 4	10.51	10.54	-0.03
	ISLO 5	11.42	14.59	-3.17
	ISLO 6	3.65	19.89	-16.24
	ISLO 7	15.85	14.95	0.90
	ISLO 8	9.82	11.88	-2.06
	ISLO 9	3.27	5.79	-2.52
	ISLO 10	11.94	6.43	5.51
	ISLO 11	12.10	6.73	5.37
	ISLO 12	0.00	0.00	N/M
	ISLO 13	0.00	0.00	N/M
	ISLO 14	0.00	0.00	N/M
	ISLO 15	8.11	12.63	-4.52
	ISLO 16	16.31	16.59	-0.28
AA	SWC GESLO A	1.21	21.83	-20.62
	SWC GESLO B	14.59	14.72	-0.13
	SWC GESLO C	11.36	9.13	2.23
	SWC GESLO D	12.00	12.76	-0.76
CSU	CSU GESLO A	1.21	0.00	N/M
	CSU GESLO B	15.59	17.03	-1.44
	CSU GESLO C	11.26	7.56	3.70
	CSU GESLO D	9.64	12.78	-3.14
	CSU GESLO E	6.85	0.00	N/M
IGETC	GESLO Area 1	1.21	0.00	N/M
	GESLO Area 2	0.00	25.05	N/M
	GESLO Area 3	11.30	6.51	4.79
	GESLO Area 4	9.91	5.96	3.95
	GESLO Area 5	15.59	15.10	0.49
	GESLO Area 6	10.52	5.83	4.69

**Figure 6: SLOs by modality.** The sum of low proficiency and no proficiency was calculated for courses that were offered face-to-face in Fall 2019 but remote in Fall 2020. If the sum is greater than the threshold 15%, then learning is impacted, and the value is marked in red. Fields colored in yellow do not have data points available. The change between modalities was calculated as the difference in score of Fall 2020 subtracted from the Fall 2019 score and is shown in the right column. Negative numbers for the change mean that outcomes during remote instruction courses were negatively affected, while positive numbers mean remote instructions improved learning outcomes. The value of 0.00 means that either there is no assessment data, or data is suppressed due to low number of assessment points.



Assessment data was filtered and analyzed for courses taught face-to-face only in Fall 2019 compared to the same courses taught online/remote only in Fall 2020<sup>2</sup>. This limited data set might then represent a snapshot to test for effects of modality on student learning and allow comparison of the effectiveness of remote instruction to face-to-face instruction. Note that not all assessments are included in this analysis, only assessments were used where classes did change modality. Figure 6 contains a data table of the learning outcomes for comparison purposes. For all ISLOs and GESLOs, the sum of low proficiency and no proficiency were computed and listed. The switch to remote instruction could potentially have three outcomes on the assessment:

- I. The switch had no effect on the learning outcome
- II. Switching to remote instruction improved learning
- III. Switching to remote instruction has worsened learning

In general, most SLOs assessed had similar outcome scores when comparing face-to-face and remote instructions. This could be a testament to the preparedness of faculty to teach remotely but could also stem from modified assessment procedures employed by faculty. Statistical analysis of the two distributions (remote and face-to-face) can tell if the two distributions are similar or different. Commonly used tests run on data sets include (but are not limited to) Pearson's Chi-square analysis and two-sample Smirnov tests. When comparing remote and face-to-face distributions statistically using the two-sample Smirnov test, they differ. Several SLOs improved moderately (by 5% or more) when switching from face-to-face instruction to remote and include ISLO Area 3 "Analyze and evaluate text in Writing", ISLO Area 10 "Identify/examine cultural values", and ISLO Area 11 "Analyze historic and social issues". Some courses that link to these SLOs stem from specific areas that include Communication, History, and Political Science. Detailed analysis as to why these SLOs had better performance is work remaining to be done by department faculty, with the aid of liaisons (if needed).

Switching instructions also had negative effects on some learning outcomes. ISLO 6 "Use quantitative reasoning to identify, analyze and solve quantitative problems." and SWC GESLO A "Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning." were most negatively impacted by the switch to remote learning. It was noted that certain courses have a hands-on lab-based component, and hence learning might be more effective in person. However, ISLO 6 and SWC GESLO A relate to quantitative reasoning and critical thinking and might not usually be assessed in a lab-based environment. It is therefore unclear why exactly these two SLOs suffered such a dramatic negative change. A possible explanation could be that the nature of the in-person and online discussion that promote critical thinking differ, and potentially hinder student success. To combat the issues that might arise from the transition of face-to-face instruction to remote instruction, the LOAC recommended improving the preparedness of faculty who teach remotely through professional development. Further, professional development that promotes critical thinking might help improve learning outcomes for ISLO 6 and SWC GESLO A.

### Disaggregated Data – Race, Gender, Age

An important part of the assessment is to disaggregate and disseminate data to identify equity gaps by race, gender, and age. Based on the California community colleges chancellor's office (CCCCO), disproportionate impact on learning occurs when students that are grouped by certain characteristics experience lower outcomes compared to the average student population. The CCCC recommends the percentage point gap method (PPG-1) to identify equity gaps. In this report, equity gaps were not consistently calculated for all SLOs by the PPG-1 method (which only takes into consideration relative performance), but rather by a performance equity gap (which relies on overall performance). A comparison of equity gaps using the PPG-1 method and the performance equity gaps are shown in Figure 8. The disaggregated raw data and a summary table for equity gaps of subgroups is also provided. The data in this report is disaggregated by race, gender, and age. While many gender identity types exist, the assessment data only address the options Female, Male, other, or unknown. There are a few important things to note before going into the details of the assessment data analysis and some of the recommendations of the LOAC. Southwestern College is a Hispanic serving institution (HSI) that serves a very diverse student body with a high population of Hispanic students. In the vision for success local goals and student equity plan, equity gaps should be reduced and eventually eliminated by cutting achievement gaps by 40% within 5 years and fully closing achievement gaps within 10 years. Southwestern College makes great efforts to provide equitable and inclusive

<sup>2</sup> eLumen can produce modality reports that include face-to-face and remote as options.

education to all students. It is therefore important to disaggregate data to identify gaps in learning outcomes and, collaboratively as an institution, provide interventions and support to reduce and eliminate equity gaps.

Southwestern College had already established a good framework for student support that includes for example learning communities that support racial subgroups. These learning communities are fundamental out-of-class support services that help improve learning outcomes and target racial minorities as well as first-year students. The LGBTQ+ subgroup is a fast-growing, very marginalized subgroup on campus that experiences many barriers to learning. The ASO and Southwestern College have recognized the need for support for LGBTQ and have established a learning community named CHEL (Aztec word for rainbow). These learning communities have been shown to increase student success, completion, and retention rates. Tutoring has been shown to be a useful intervention tool to help close equity gaps. Tutoring services and the power study program are both successfully implemented on campus and help increase student success while simultaneously reducing equity gaps. Of course, during the pandemic concerns of equitable access to learning communities and tutoring (as well as all the other student services such as first-year experience) for students exist.

Also, Southwestern College has focused on equity, diversity, and inclusion, and has invested in training faculty how to teach diverse students to help close equity gaps. Departments are encouraged to contact faculty that have participated in the Advancing Equity Teaching Academy (AETA) and/or in the ESCALA institute that helps faculty increase retention and graduation rates of underrepresented students in higher education. DEFT training, the how-to academy, and the remote teaching certificate provide professional development that increases faculty preparedness to teach remotely. The work-based learning certificate program prepares faculty to provide students with real-life experiences that connect curriculum to future careers.

	SLO	Ethnicity									Gender			Age							Data Points		
		Native American	Asian	Black	Fillipino	Pacific Islander	Hispanic	two or more	White	Unknown	Female	Male	Other	Unknown	19 or less	20-24	25-29	30-34	35-39	40-49		50+	Unknown
ISLO	ISLO 1	*	4.90	9.73	5.89	*	8.81	5.79	9.00	11.76	6.96	11.19	*	6.06	9.43	9.14	7.13	7.31	5.66	6.43	8.72	*	3092
	ISLO 2	10.00	7.62	17.51	8.84	3.85	13.09	9.87	6.56	*	10.48	14.36	*	12.65	19.14	13.41	10.25	6.59	8.76	8.50	6.00	*	14509
	ISLO 3	7.69	9.58	13.87	9.67	4.76	14.32	8.15	9.96	*	12.90	13.43	*	14.28	17.85	14.25	8.51	8.39	7.96	13.18	8.63	*	5288
	ISLO 4	8.00	10.65	14.73	11.34	14.59	14.03	11.11	7.85	*	12.27	14.28	*	14.96	15.96	14.22	11.28	7.92	7.80	9.54	9.44	*	12278
	ISLO 5	9.09	6.07	16.29	9.45	22.22	14.35	10.58	6.81	7.66	11.25	14.76	*	16.32	14.70	14.92	10.08	7.94	9.15	6.83	7.88	*	17683
	ISLO 6	*	6.22	16.31	10.32	*	14.37	17.70	6.18	9.38	9.56	17.49	*	15.79	25.73	15.56	7.44	5.37	3.73	6.45	6.56	*	4926
	ISLO 7	15.38	10.11	16.78	11.80	21.06	14.45	11.84	8.05	8.07	12.93	14.67	*	15.52	15.19	14.96	13.59	8.41	8.38	3.80	7.96	*	4724
	ISLO 8	*	5.13	13.16	5.85	*	11.00	6.89	9.73	14.29	9.17	11.29	*	16.67	12.28	11.52	6.28	9.26	10.52	10.77	4.88	*	1332
	ISLO 9	*	2.86	11.11	1.01	*	6.67	2.33	4.55	*	4.93	7.27	*	14.28	6.06	6.05	6.21	9.62	7.84	1.39	1.61	*	1144
	ISLO 10	*	6.25	7.40	3.06	*	7.61	6.66	2.96	0.00	6.32	8.14	*	0.00	7.96	8.32	3.48	6.30	2.94	6.58	0.00	*	1799
	ISLO 11	*	9.09	10.35	7.95	*	13.12	10.20	6.11	4.00	11.28	11.88	*	9.09	12.41	13.98	8.78	5.82	4.62	5.38	4.88	*	1624
	ISLO 12	*	*	*	27.27	*	22.15	*	9.09	*	20.23	25.46	*	*	26.32	22.30	15.00	*	*	*	*	*	198
	ISLO 13	*	*	*	*	*	16.67	*	*	*	18.18	6.67	*	*	*	*	*	*	*	*	6.67	*	48
	ISLO 14	*	0.00	24.39	7.56	*	14.57	17.55	7.00	6.45	11.37	16.84	*	4.17	18.98	13.52	15.66	16.98	4.76	17.24	6.30	*	1562
	ISLO 15	*	0.00	25.00	6.50	*	13.66	20.45	5.17	*	9.85	17.80	*	*	18.75	14.18	17.24	1.69	7.14	0.00	6.67	*	837
	ISLO 16	*	4.76	24.53	11.18	*	16.50	13.68	9.24	13.64	13.62	18.12	*	16.67	16.91	15.98	15.25	14.47	0.00	8.88	11.54	*	1920
AA	GESLO A	*	15.99	18.08	12.88	5.72	15.94	10.21	10.29	14.43	15.24	14.96	*	10.96	17.47	15.40	11.49	9.11	4.92	18.29	16.52	*	7907
	GESLO B	31.58	6.99	17.54	11.72	23.07	16.93	12.38	9.79	5.76	14.62	16.76	*	11.11	19.32	16.52	14.69	9.36	11.04	10.80	8.28	*	11697
	GESLO C	*	6.29	12.97	9.85	25.92	11.69	13.38	9.85	7.37	10.87	12.23	*	14.28	13.83	12.42	9.74	7.69	5.78	4.68	6.34	*	8678
	GESLO D	16.67	12.84	18.69	11.26	27.27	15.55	14.93	10.03	8.34	13.80	16.13	*	13.42	15.77	16.05	13.20	8.85	10.45	9.06	4.95	*	8497
CSU	GESLO A	*	18.81	16.67	8.33	0.00	13.86	7.08	9.26	5.33	13.49	11.98	*	9.62	15.79	12.09	10.08	8.74	7.38	14.08	10.82	*	5311
	GESLO B	23.08	10.28	20.81	12.46	17.08	17.05	14.95	9.40	9.77	14.64	17.77	*	14.52	18.90	17.00	15.36	8.90	10.30	9.26	9.65	*	17686
	GESLO C	47.37	3.49	13.84	7.96	15.79	11.89	11.42	9.17	8.13	10.25	12.84	*	9.71	13.85	11.95	9.78	7.90	4.30	6.48	6.28	*	10020
	GESLO D	*	13.87	19.29	11.44	25.00	15.07	17.14	9.16	10.15	13.42	16.03	*	15.87	15.60	15.91	11.99	9.60	6.57	10.00	2.50	*	6068
	GESLO E	*	0.00	0.00	4.00	*	2.33	9.09	3.33	*	3.27	3.23	*	*	1.37	3.16	0.00	5.88	*	0.00	*	*	420
IGETC	GESLO 1	*	21.36	16.89	8.93	0.00	14.74	7.32	8.93	3.38	14.44	12.36	*	11.36	15.23	13.31	11.09	9.87	5.27	16.66	12.70	*	3966
	GESLO 2	*	22.03	29.27	16.17	16.66	22.60	19.70	17.53	21.43	20.26	22.48	*	12.50	26.71	20.75	14.47	14.54	12.00	29.63	*	1540	
	GESLO 3	46.67	2.94	13.58	8.98	17.64	12.63	13.37	8.89	6.93	10.98	13.31	*	10.25	15.40	12.53	9.91	8.49	4.57	7.84	5.79	*	7869
	GESLO 4	*	14.62	21.68	12.21	27.78	15.64	15.92	9.41	11.48	13.96	16.58	*	13.12	15.81	16.52	12.71	8.96	6.84	10.13	3.12	*	5588
	GESLO 5	25.00	8.36	19.87	11.87	17.14	16.42	14.26	8.57	8.15	14.17	16.90	*	13.94	16.69	16.46	15.36	8.75	10.00	8.28	7.57	*	15883
	GESLO 6	*	5.12	12.20	4.86	*	5.16	4.69	15.39	5.26	5.53	6.70	*	0.00	6.90	6.05	5.77	7.50	5.36	2.54	1.67	*	1744

**Figure 7: SLO equity gap analysis.** The sum of low proficiency and no proficiency was calculated, and values are shown in the table for all ISLOs and GESLOs. If the sum is greater than the threshold 15%, then learning is impacted, and the value is marked in red. Data is aggregated by ethnicity, gender and age. The number of total data points for each SLO is also displayed. Values of zero or if there are less than 10 data points available for the SLO are suppressed. A grey field with a "\*" indicates that there are no data points for the specific characteristics and learning outcome available, or that the data is suppressed because of low number of data points. For clarity, GESLOs were abbreviated. SWC GESLO A-D is as GESLO A under the AA tab, CSU GESLO A-E is shown as GESLO A-E under the CSU tab, and GESLO Area 1-6 is shortened to GESLO 1-6 under the IGETC tab.

In this report performance equity gaps of subgroups that contain gender and race are reported, when the combined score of LP and NP is larger than the threshold of 15%. Figure 7 shows the various equity gaps for race, gender, and age group for each learning outcome colored in red. In terms of the total count of impacted learning with respect to ethnicity, Native Americans (21 counts) and Black/African Americans (18 counts) exhibit the most while White (2 counts) and Unknown (2 counts) show the least learning outcomes that are impacted. For gender, Male (12 counts) had the highest count of impacted learning outcomes while Female (4 counts) had the least. With respect to age, students of age 19 or less (20 counts) had the most learning outcomes impacted while students of age 35-39 (1 count) had the lowest count.

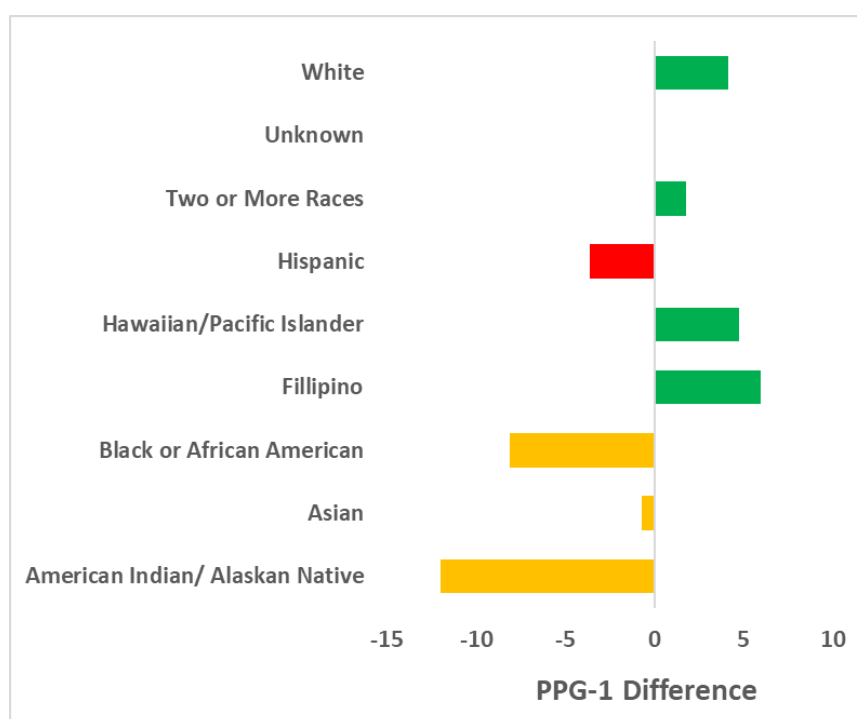
During the discussion sessions of the LOAC, it was noted that often the youngest students were negatively impacted in terms of learning. This might be due to learning and studying habits acquired during their K-12 education. To improve learning outcomes for the age group of 19 or less, more onboarding experiences before the start of the semester should be made available to young students. An example of onboarding for students is the first-year experience, a program offered by counseling that is expanding services to newly enrolled first-year college students. This will help these students navigate campus and its student resources. Utilizing resources often improves student self-efficacy and promotes student success. Further, Y.E.S. Academy courses during summer and college preparation courses at local high schools should be promoted. Younger students could also benefit from stronger relationships to feeder schools and dual enrollment programs. The utilization of tutoring also should improve learning outcomes and student achievement. All these recommendations relate to student services offered at SWC. Creating a curriculum that is interesting to younger students could also be a good strategy to increase learning outcomes. For example, during the discussions of ISLO 3 and 4, it was noted that the curriculum should provide literature of interest to especially young students, and should include group work, which is more difficult during the pandemic, as well as other activities to engage young students and build their confidence in their skills. Best practices from universal design for learning (UDL) based on the premise of inclusivity to reach all students could also provide a framework that is more conducive for learning for young students. Further, culturally responsive teaching and meeting students where they are at (which sometimes means underprepared for college) and engaging high content students with culturally responsive teaching could improve learning outcomes for students. Curriculum and program improvements could be supported by program review proposals.

The discussions of gender in the LOAC meetings were brief, and while female students outperform male students across all learning outcomes, very few intervention methods for male students were proposed. Counseling informed that male students of color often experience trauma, and trauma-informed training and staff development with a focus on creating culturally responsive activities for males of color was proposed. Joining a learning community further supports students of color who have experienced trauma. Another aspect is the college gender gap in terms of enrollment, i.e., more women enroll and persist in college than males. Research indicates that this gender gap often is related to behavioral factors such as study habits. For example, the LOAC was interested to map out soft skills of male and female students, such as study skills, time management, etc. and compare those soft skills. If male students are lacking these soft skills, then a curriculum can be designed to teach these skills to male students in pre-semester professional development courses. This data is not available and could be required through an educational research proposal or surveys.

In terms of ethnicity, the difference in learning outcomes with equity gaps between White students and Black/African American students as well as Native American students is tremendous. During LOAC discussions it was noted that the data points for assessment of Native American which includes American Indian and Alaska Native often are rather small and might not be as meaningful at times. Students of color should be encouraged to participate in learning communities such as Umoja and Puente. Further, students of color should be made visible on campus. SLOs related to art and culture could benefit from cultural performance offerings such as Native American and Pacific Islander dance and/or music performances while celebrating cultural differences. Further, Native American dance and music could be showcased during opening day. Students of color also often face inequities in resources such as technology and access to information. It would be helpful to survey students to identify needs and bottlenecks to learning. Tutoring services and the PSP should be used by students. Additionally, tutoring services and the writing center can adjust their support to address equity gaps of students, for example, tutoring services could analyze their offering of bilingual/multilingual tutors to see if this impacts learning of some of our students where English is not the native language. Faculty members should sign up for professional development such as AETA offered at Southwestern College, or consult with faculty trained in equity, diversity, and inclusion. Culturally responsive teaching will help close equity gaps for students of color.

## Performance gaps and PPG-1 equity gap analysis

Eliminating achievement and equity gaps is part of the vision for success and the student equity plan at Southwestern College. The PPG-1 methodology compares the relative performance of a subgroup of students to all other students and flags the subgroup if the difference is greater than a margin of error. The margin depends on the size of the subgroup and assumes 95% confidence. If the PPG-1 is larger than the margin, an equity gap exists. Let's consider for example equity gaps with respect to ethnicity and race for GESLO Area 2. The performance equity gap analysis (see also Appendix B for performance equity gap results) shows that all ethnicities/races from Native American to White have a performance equity gap. Analysis of the same SLO data for GESLO Area 2 using the PPG-1 methodology is shown in Figure 8. Based on the PPG-1 analysis, only Hispanic students display a statistically significant equity gap larger than the calculated margin of error. Black or African American and American Indian/Alaskan Native show impacted learning due to the negative PPG-1 difference, but due to the margin of error, there is no equity gap. In terms of the vision of success and student equity plan, the only equity gap in terms of race/ethnicity that needs to be closed for GESLO Area 2 is for Hispanic students. In terms of the performance equity gap, all ethnicities/races have learning impacted. PPG-1 is therefore a much less stringent criterium to indicate impacted learning.



**Figure 8: SLO equity gap analysis using PPG-1 methodology.** Negative PPG-1 differences that are larger than the margin of error is indicated in red and mean there is an equity gap. Negative PPG-1 differences that are smaller than the margin of error is shown in yellow, show impacted learning by this subgroup, but not an equity-gap. For GESLO Area 2 only Hispanic students exhibit an equity gap.

## Discussion on data limitations

In a regular semester, assessment follows best practices, and faculty are trained to assess learning outcomes appropriately. During a pandemic, assessments are created by individual faculty, and data is obtained under non-ideal conditions. For example, learning outcomes are assessed in a remote setting for hands-on laboratory skills. Further, curriculum and assessments were often developed for face-to-face classes, but not remote classes, and required faculty to translate both to a different modality of teaching. While some faculty are very trained to handle this task, others might not be. Further data limitations arise due to sampling size, it is important to improve sample size for student learning objectives. Larger data sets are important as they reduce error margins and increase confidence in the results discussed by the LOAC. In terms of assessment data sampling, it needs to be

noted that in 2019, ISLOs 12-16 had low numbers of data points. In cooperation with the liaisons of the LOAC, the department of Visual Arts improved the mapping of course student learning outcomes (CSLOs) to ISLOs 14-16, which resulted in an almost four-fold increase in the number of data points. The liaisons of the LOAC have worked with the performing art department which includes music, theatre, and dance to further improve the number of assessments for ISLOs 14-16, and an increase in assessments is expected for Fall 2021 and Spring 2022.

## Conclusion

Assessment data shows that overall learning is achieved for both institutional-set learning outcomes (ISLOs) and learning outcomes related to required general education courses (GESLOs). Students scored “high proficiency” on average for all ISLOs and GESLOs. Performance gaps were identified using the rule of 15% (combined percentages of low and no proficiency scores) and recommendations of professional development, inter-departmental training, expanded student services, and resource allocations through program review were made. Disaggregated data was also analyzed. A look at modality showed that the transition of face-to-face classes and modification of current assessments of learning outcomes mostly had negligible effects on student performance and achievements of learning. Analysis of the disaggregated data by age revealed that overall younger students of age 19 or less exhibited performance gaps. Curriculum changes, as well as student support services, should improve learning outcomes for the younger students. Gender performance gaps exist and show that male students exhibit most impacted learning, and hence require an action plan to improve student success. A significant number of SLOs showed performance equity gaps in terms of ethnicity. African American, Native American, Hispanic, and Hawaiian/Pacific Islander ethnicities had the most equity gaps with respect to ethnicity. SWC offers many professional development workshops on equity, diversity, and inclusion such as AETA. The LOAC recommends a systematic approach to train and support faculty in culturally responsive teaching with a focus on increasing student achievement. In contrast to the more stringent methodology of performance equity gaps, Southwestern college only shows very few equity gaps using the PPG-1 methodology recommended by CCCCCO. Consistent with the vision for success and the student equity plan, Southwestern College already has done tremendous progress in reducing equity gaps so far and has created a framework for students and faculty to foster student success.



## Appendixes

### Appendix A - List of Learning Outcomes and Description

Institutional Student Learning Outcomes		
	ISLO	Description
<b>Communication Skills</b> (Listening, Speaking, Reading, Writing)	ISLO 1	Listen and speak actively and critically to identify a person's position and then analyze it to determine its quality.
	ISLO 2	Present ideas in a clear and organized way to others
	ISLO 3	Analyze and evaluate text in writing.
<b>Thinking and Reasoning</b> (Creative Thinking, Critical Thinking, Quantitative Reasoning)	ISLO 4	Formulate and share ideas, analyze the ideas of others, integrate them into their thinking.
	ISLO 5	Assess and analyze data and information as they investigate issues and solve problems.
	ISLO 6	Use quantitative reasoning to identify, analyze and solve quantitative problems.
<b>Information Competency</b> (Research and Technology)	ISLO 7	Research topics by identifying, analyzing and assessing the ideas from a variety of sources to conduct research.
	ISLO 8	Students will use print material and technology to identify research needs and develop and evaluate information effectively and responsibly.
<b>Global Awareness and Ethics</b> (Social, Cultural, and Civic Responsibility)	ISLO 9	Collegially work with diverse groups of people.
	ISLO 10	Identify and examine the cultural values of different ethnic groups in a sensitive and respectful manner.
	ISLO 11	Analyze and evaluate the influence that science, mass media, politics, socio-economics, technology, lifestyle, art, environment, religion or history have on society.
	ISLO 12	Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.
	ISLO 13	Evaluate and determine if a given set of economic, social and environmental systems and practices are sustainable in the long term.

<b>Aesthetic Sensitivity and Historical Literacy</b> (History, Creativity, and Artistic and Perceptual Experiences)	ISLO 14	Identify, examine and critique the aesthetic, political, scientific, philosophical or and historical elements of human culture.
	ISLO 15	Demonstrate creative thinking and artistic sensitivity in creating works of art and effectively describe the artistic processes used.
	ISLO 16	Analyze and critique the philosophical, technical, historical, cultural and aesthetic qualities of works of art.

<b>SWC Associates Degree General Education Student Learning Outcomes</b>	
<b>SWC GESLO</b>	<b>Description</b>
A: Language and Analytical Thinking	Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.
B: Natural Science	Examine issues related to the natural sciences from an evidence-based perspective and use in applied contexts.
C: Humanities	Evaluate and critique the influence of artistic techniques and expression on culture and society.
D: Social, Political and Economic Institutional and Behavior, Historical Background	Identify and analyze data, perspectives, trends, concepts or issues pertaining to human social function and experience.

<b>CSU General Education Student Learning Outcomes</b>	
<b>CSU GESLO</b>	<b>Description</b>
A: English Language, Communications and Critical Thinking	Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.
B: Scientific Inquiry Quantitative Reasoning	Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data in order to effectively problem-solve issues in a variety of contexts.
C: Art and Humanities	Evaluate and critique the influences of artistic techniques and expression on culture and society.
D: Social Sciences	Identify and analyze data, perspective, trends, concepts, and issues pertaining to human social function and experience.
E: Life-Long Learning and Self-Development	The student will recognize various contributions to self-development by identifying factors that impact the body, mind, or spirit.

<b>IGETC General Education Student Learning Outcomes</b>
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<b>IGETC GESLO</b>	<b>Description</b>
Area 1: English Communication	Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.
Area 2: Mathematical Concepts and Quantitative Reasoning	Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.
Area 3: Arts and Humanities	Evaluate and critique the influence of artistic techniques and expression on culture and society.
Area 4: Social and Behavioral Sciences	Analyze and critique data, perspectives, trends, concepts, and issues pertaining to human social function and experience.
Area 5: Physical and Biological Sciences	Examine and evaluate issues related to the physical and biological sciences from an evidence-based perspective and use in applied contexts.
Area 6: Language Other Than English	Acquire proficiency using the vocabulary, syntax and semantics of a foreign language to effectively speak, read, and write using that language.

## Appendix B – Performance Equity Gaps

### Identified Performance Equity Gaps by Learning Outcome

<b>Institutional Student Learning Outcomes (ISLOs)</b>	<b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 1 Communication Skills: Listen and speak actively and critically to identify a person’s position and then analyze it to determine its quality.	Ethnicity: American Indian/Alaska Native	50.00
ISLO 2 Communication Skills: Present ideas in a clear and organized way to others.	Age: 19 or less	19.14
	Ethnicity: Black or African American	17.51
ISLO 3 Communication Skills: Analyze and evaluate text in writing.	Age: 19 or less	17.85
	Modality: Face-to-Face (Fall 2019)	15.91
ISLO 4 Thinking and Reasoning: Formulate and share ideas, analyze the ideas of others, integrate them into their thinking.	Age: 19 or less	15.96
ISLO 5 Thinking and Reasoning: Assess and analyze data and information as they investigate issues and solve problems.	Ethnicity: Black or African American	16.29
	Ethnicity: Hawaiian/Pacific Islander	22.22
	Gender: Unknown	16.32
ISLO 6 Thinking and Reasoning: Use quantitative reasoning to identify, analyze and solve quantitative problems.	Age: 19 or less	25.73
	Age: 20-24	15.56
	Ethnicity: American Indian/Alaska Native	25.00
	Ethnicity: Black or African American	16.31
	Ethnicity: Two or More Races	17.70
	Gender: Male	17.49



	Gender: Unknown Modality: Online (Fall 2020)	15.79 19.89
ISLO 7 Information Competency: Research topics by identifying, analyzing and assessing the ideas from a variety of sources to conduct research.	Age: 19 or less Ethnicity: American Indian/Alaska Native Ethnicity: Black or African American Ethnicity: Hawaiian/Pacific Islander Gender: Unknown Modality: Face-to-Face (Fall 2019)	15.19 15.38 16.78 21.06 15.52 15.85
ISLO 8 Information Competency: Students will use print material and technology to identify research needs and develop and evaluate information effectively and responsibly.	Ethnicity: Hawaiian/Pacific Islander Gender: Unknown	25.00 16.67
ISLO 9 Global Awareness and Ethics: Collegially work with diverse groups of people.	Ethnicity: American Indian/Alaska Native	50.00
ISLO 10 Global Awareness and Ethics: Identify and examine the cultural values of different ethnic groups in a sensitive and respectful manner.	Ethnicity: American Indian/Alaska Native	100.00
ISLO 11 Global Awareness and Ethics: Analyze and evaluate the influence that science, mass media, politics, socio-economics, technology, lifestyle, art, environment, religion or history have on society.	Ethnicity: American Indian/Alaska Native Ethnicity: Hawaiian/Pacific Islander	20.00 22.22
ISLO 12 Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.	Age: 19 or less Age: 20-24 Age: 25-29 Age: 30-34 Age: 35-39 Age: 40-49 Ethnicity: Black or African American Ethnicity: Filipino Ethnicity: Hispanic Ethnicity: Two or More Races Gender: Female Gender: Male	26.32 22.30 15.00 22.22 25.00 60.00 33.33 27.27 22.15 50.00 20.23 25.46
ISLO 13 Global Awareness and Ethics: Evaluate and determine if a given set of economic, social and environmental systems and practices are sustainable in the long term.	Age: 30-34 Ethnicity: Filipino Ethnicity: Hispanic Gender: Female	25.00 20.00 16.67 18.18
ISLO 14 Aesthetic Sensitivity and Historical Literacy: Identify, examine and critique the aesthetic, political, scientific, philosophical, or and historical elements of human culture.	Age: 19 or less Age: 25-29 Age: 30-34 Age: 40-49 Ethnicity: American Indian/Alaska Native	18.98 15.66 16.98 17.24 66.67

	Ethnicity: Black or African American Ethnicity: Two or More Races Gender: Male	24.39 17.55 16.84
ISLO 15 Aesthetic Sensitivity and Historical Literacy: Demonstrate creative thinking and artistic sensitivity in creating works of art and effectively describe the artistic processes used.	Age: 19 or less Age: 25-29 Ethnicity: Black or African American Ethnicity: Hispanic Ethnicity: Two or More Races Ethnicity: Unknown Gender: Male	18.75 17.24 25.00 13.66 20.45 33.33 17.80
ISLO 16 Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural, and aesthetic qualities of works of art.	Age: 19 or less Age: 20-24 Age: 25-29 Ethnicity: American Indian/Alaska Native Ethnicity: Black or African American Ethnicity: Hispanic Gender: Male Gender: Unknown Modality: Face-to-Face (Fall 2019) Modality: Online (Fall 2020)	16.91 15.98 15.25 50.00 24.53 16.50 18.12 16.67 16.31 16.59

<b>SWC General Education Student Learning Outcomes (GESLOs)</b>	<b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	Age: 19 or less Age: 20-24 Age: 40-49 Age: 50+ Ethnicity: American Indian/Alaska Native Ethnicity: Asian Ethnicity: Black or African American Ethnicity: Hispanic Gender: Female Modality: Online (Fall 2020)	17.47 15.40 18.29 16.52 40.00 15.99 18.08 15.94 15.24 21.83
GESLO B Examine issues related to the natural sciences from an evidence-based perspective and use in applied contexts.	Age: 19 or less Age: 20-24 Ethnicity: American Indian/Alaska Native Ethnicity: Black or African American Ethnicity: Hawaiian/Pacific Islander Ethnicity: Hispanic Gender: Male	19.32 16.52 31.58 17.54 23.07 16.93 16.67
GESLO C Evaluate and critique the influence of artistic techniques and expression on culture and society.	Ethnicity: American Indian/Alaska Native Ethnicity: Hawaiian/Pacific Islander	22.22 25.92

GESLO D Identify and analyze data, perspectives, trends, concepts or issues pertaining to human social function and experience.	Age: 19 or less	15.77
	Age: 20-24	16.05
	Ethnicity: American Indian/Alaska Native	16.67
	Ethnicity: Black or African American	18.69
	Ethnicity: Hawaiian/Pacific Islander	27.27
	Ethnicity: Hispanic	15.55
Gender: Male	16.13	

<b>CSU General Education Student Learning Outcomes (GESLOs)</b>	<b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	Age: 19 or less Ethnicity: American Indian/Alaska Native Ethnicity: Asian Ethnicity: Black or African American	15.79 33.34 18.81 16.67
GESLO B Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data in order to effectively problem-solve issues in a variety of contexts.	Age: 19 or less Age: 20-24 Age: 25-29 Ethnicity: American Indian/Alaska Native Ethnicity: Black or African American Ethnicity: Hawaiian/Pacific Islander Ethnicity: Hispanic Gender: Male Modality: Face-to-Face (Fall 2019) Modality: Online (Fall 2020)	18.90 17.00 15.36 23.08 20.81 17.08 17.05 17.77 15.59 17.03
GESLO C Evaluate and critique the influences of artistic techniques and expression on culture and society.	Ethnicity: American Indian/Alaska Native Ethnicity: Hawaiian/Pacific Islander	47.37 15.79
GESLO D: Identify and analyze data, perspective, trends, concepts, and issues pertaining to human social function and experience.	Age: 19 or less Age: 20-24 Ethnicity: American Indian/Alaska Native Ethnicity: Black or African American Ethnicity: Hawaiian/Pacific Islander Ethnicity: Hispanic Ethnicity: Two or More Races Gender: Male Gender: Unknown	15.60 15.91 20.00 19.29 25.00 15.07 17.14 16.03 15.87
GESLO E The student will recognize various contributions to self-development by identifying factors that impact the body, mind, or spirit.	Age: 50+	20.00

<b>IGETC General Education Student Learning Outcomes (GESLOs)</b>	<b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
GESLO Area 1 Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	Age: 19 or less Age: 40-49	15.23 16.66

	Ethnicity: American Indian/Alaska Native Ethnicity: Asian Ethnicity: Black or African American	33.34 21.36 16.89
GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	Age: 19 or less Age: 20-24 Age: 40-49 Age: 50+ Ethnicity: American Indian/Alaska Native Ethnicity: Asian Ethnicity: Black or African American Ethnicity: Filipino Ethnicity: Hawaiian/Pacific Islander Ethnicity: Hispanic Ethnicity: Two or More Races Ethnicity: White Ethnicity: Unknown Gender: Female Gender: Male Modality: Online	26.71 20.75 29.63 55.55 33.33 22.03 29.27 16.17 16.66 22.60 19.70 17.53 21.43 20.26 22.48 25.05
GESLO Area 3 Evaluate and critique the influence of artistic techniques and expression on culture and society.	Age: 19 or less Ethnicity: American Indian/Alaska Native Ethnicity: Hawaiian/Pacific Islander Modality: Face-to-Face (Fall 2019) Modality: Online (Fall 2020)	15.40 46.67 17.74 15.59 15.10
GESLO Area 4 Analyze and critique data, perspectives, trends, concepts, and issues pertaining to human social function and experience.	Age: 19 or less Age: 20-24 Ethnicity: Black or African American Ethnicity: Hawaiian/Pacific Islander Ethnicity: Hispanic Ethnicity: Two or More Races Gender: Male	15.81 16.52 21.68 27.78 15.64 15.92 16.58
GESLO Area 5 Examine and evaluate issues related to the physical and biological sciences from an evidence-based perspective and use in applied context.	Age: 19 or less Age: 20-24 Age: 25-29 Ethnicity: American Indian/Alaska Native Ethnicity: Black or African American Ethnicity: Hawaiian/Pacific Islander Ethnicity: Hispanic Gender: Male	16.69 16.46 15.36 25.00 19.87 17.14 16.42 16.90
GESLO Area 6 Acquire proficiency using the vocabulary, syntax and semantics of a foreign language to effectively speak, read, and write using that language.	Ethnicity: American Indian/Alaska Native Ethnicity: White	100.00 15.39

## Identified Performance Equity Gaps by Age

Age: 19 or less ≤ 15% Low–Proficiency and No Proficiency Combined	%
ISLO 2 Communication Skills: Present ideas in a clear and organized way to others.	19.14
ISLO 3 Communication Skills: Analyze and evaluate text in writing.	17.85
ISLO 4 Thinking and Reasoning: Formulate and share ideas, analyze the ideas of others, integrate them into their thinking.	15.96
ISLO 6 Thinking and Reasoning: Use quantitative reasoning to identify, analyze and solve quantitative problems.	25.73
ISLO 7 Information Competency: Research topics by identifying, analyzing and assessing the ideas from a variety of sources to conduct research.	15.19
ISLO 12 Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.	26.32
ISLO 14 Aesthetic Sensitivity and Historical Literacy: Identify, examine and critique the aesthetic, political, scientific, philosophical, or and historical elements of human culture.	18.98
ISLO 15 Aesthetic Sensitivity and Historical Literacy: Demonstrate creative thinking and artistic sensitivity in creating works of art and effectively describe the artistic processes used.	18.75
ISLO 16 Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural, and aesthetic qualities of works of art.	16.91
SWC GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	17.47
SWC GESLO B Examine issues related to the natural sciences from an evidence-based perspective and use in applied contexts.	19.32
SWC GESLO D Identify and analyze data, perspectives, trends, concepts or issues pertaining to human social function and experience.	15.77
CSU GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	15.79
CSU GESLO B Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data in order to effectively problem-solve issues in a variety of contexts.	18.90
CSU GESLO D: Identify and analyze data, perspective, trends, concepts, and issues pertaining to human social function and experience.	15.60
IGETC GESLO Area 1 Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	15.23

IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	26.71
IGETC GESLO Area 3 Evaluate and critique the influence of artistic techniques and expression on culture and society.	15.40
IGETC GESLO Area 4 Analyze and critique data, perspectives, trends, concepts, and issues pertaining to human social function and experience.	15.81
IGETC GESLO Area 5 Examine and evaluate issues related to the physical and biological sciences from an evidence-based perspective and use in applied context.	16.69

<b>Age: 20-24</b>	<b>%</b>
<b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	
ISLO 6 Thinking and Reasoning: Use quantitative reasoning to identify, analyze and solve quantitative problems.	15.56
ISLO 12 Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.	22.30
ISLO 16 Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural, and aesthetic qualities of works of art.	15.98
SWC GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	15.40
SWC GESLO B Examine issues related to the natural sciences from an evidence-based perspective and use in applied contexts.	16.52
SWC GESLO D Identify and analyze data, perspectives, trends, concepts or issues pertaining to human social function and experience.	16.05
CSU GESLO B Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data in order to effectively problem-solve issues in a variety of contexts.	17.00
CSU GESLO D: Identify and analyze data, perspective, trends, concepts, and issues pertaining to human social function and experience.	15.91
IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	20.75
IGETC GESLO Area 4 Analyze and critique data, perspectives, trends, concepts, and issues pertaining to human social function and experience.	16.52
IGETC GESLO Area 5 Examine and evaluate issues related to the physical and biological sciences from an evidence-based perspective and use in applied context.	16.46

<b>Age: 25-29</b> <b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 12 Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.	15.00
ISLO 14 Aesthetic Sensitivity and Historical Literacy: Identify, examine and critique the aesthetic, political, scientific, philosophical, or and historical elements of human culture.	15.66
ISLO 15 Aesthetic Sensitivity and Historical Literacy: Demonstrate creative thinking and artistic sensitivity in creating works of art and effectively describe the artistic processes used.	17.24
ISLO 16 Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural, and aesthetic qualities of works of art.	15.25
CSU GESLO B Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data in order to effectively problem-solve issues in a variety of contexts.	15.36
IGETC GESLO Area 5 Examine and evaluate issues related to the physical and biological sciences from an evidence-based perspective and use in applied context.	15.36

<b>Age: 30-34</b> <b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 12 Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.	22.22
ISLO 13 Global Awareness and Ethics: Evaluate and determine if a given set of economic, social and environmental systems and practices are sustainable in the long term.	25.00
ISLO 14 Aesthetic Sensitivity and Historical Literacy: Identify, examine and critique the aesthetic, political, scientific, philosophical, or and historical elements of human culture.	16.98

<b>Age: 35-39</b> <b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 12 Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.	25.00

<b>Age: 40-49</b> <b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 12 Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.	60.00
ISLO 14 Aesthetic Sensitivity and Historical Literacy: Identify, examine and critique the aesthetic, political, scientific, philosophical, or and historical elements of human culture.	17.24

SWC GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	18.29
IGETC GESLO Area 1 Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	16.66
IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	29.63

<b>Age: 50+ ≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
SWC GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	16.52
CSU GESLO E The student will recognize various contributions to self-development by identifying factors that impact the body, mind, or spirit.	20.00
IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	55.55

### Identified Performance Equity Gaps by Ethnicity

<b>Ethnicity: American Indian/Alaska Native ≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 1 Communication Skills: Listen and speak actively and critically to identify a person’s position and then analyze it to determine its quality.	50.00
ISLO 6 Thinking and Reasoning: Use quantitative reasoning to identify, analyze and solve quantitative problems.	25.00
ISLO 7 Information Competency: Research topics by identifying, analyzing and assessing the ideas from a variety of sources to conduct research.	15.38
ISLO 9 Global Awareness and Ethics: Collegially work with diverse groups of people.	50.00
ISLO 10 Global Awareness and Ethics: Identify and examine the cultural values of different ethnic groups in a sensitive and respectful manner.	100.00
ISLO 11 Global Awareness and Ethics: Analyze and evaluate the influence that science, mass media, politics, socio-economics, technology, lifestyle, art, environment, religion or history have on society.	20.00
ISLO 14 Aesthetic Sensitivity and Historical Literacy: Identify, examine and critique the aesthetic, political, scientific, philosophical, or and historical elements of human culture.	66.67
ISLO 16 Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural, and aesthetic qualities of works of art.	50.00



SWC GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	40.00
SWC GESLO B Examine issues related to the natural sciences from an evidence-based perspective and use in applied contexts.	31.58
SWC GESLO C Evaluate and critique the influence of artistic techniques and expression on culture and society.	22.22
SWC GESLO D Identify and analyze data, perspectives, trends, concepts or issues pertaining to human social function and experience.	16.67
CSU GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	33.34
CSU GESLO B Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data in order to effectively problem-solve issues in a variety of contexts.	23.08
CSU GESLO C Evaluate and critique the influences of artistic techniques and expression on culture and society.	47.37
CSU GESLO D: Identify and analyze data, perspective, trends, concepts, and issues pertaining to human social function and experience.	20.00
IGETC GESLO Area 1 Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	33.34
IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	33.33
IGETC GESLO Area 3 Evaluate and critique the influence of artistic techniques and expression on culture and society.	46.67
IGETC GESLO Area 5 Examine and evaluate issues related to the physical and biological sciences from an evidence-based perspective and use in applied context.	25.00
IGETC GESLO Area 6 Acquire proficiency using the vocabulary, syntax and semantics of a foreign language to effectively speak, read, and write using that language.	100.00

<b>Ethnicity: Asian</b>	<b>%</b>
<b>≤ 15% Low-Proficiency and No Proficiency Combined</b>	
SWC GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	15.99
CSU GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	18.81
IGETC GESLO Area 1 Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	21.36

IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	22.03
<b>Ethnicity: Black or African American ≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 2 Communication Skills: Present ideas in a clear and organized way to others.	17.51
ISLO 5 Thinking and Reasoning: Assess and analyze data and information as they investigate issues and solve problems.	16.29
ISLO 6 Thinking and Reasoning: Use quantitative reasoning to identify, analyze and solve quantitative problems.	16.31
ISLO 7 Information Competency: Research topics by identifying, analyzing and assessing the ideas from a variety of sources to conduct research.	16.78
ISLO 12 Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.	33.33
ISLO 14 Aesthetic Sensitivity and Historical Literacy: Identify, examine and critique the aesthetic, political, scientific, philosophical, or and historical elements of human culture.	24.39
ISLO 15 Aesthetic Sensitivity and Historical Literacy: Demonstrate creative thinking and artistic sensitivity in creating works of art and effectively describe the artistic processes used.	25.00
ISLO 16 Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural, and aesthetic qualities of works of art.	24.53
SWC GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	18.08
SWC GESLO B Examine issues related to the natural sciences from an evidence-based perspective and use in applied contexts.	17.54
SWC GESLO D Identify and analyze data, perspectives, trends, concepts or issues pertaining to human social function and experience.	18.69
CSU GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	16.67
CSU GESLO B Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data in order to effectively problem-solve issues in a variety of contexts.	20.81
CSU GESLO D: Identify and analyze data, perspective, trends, concepts, and issues pertaining to human social function and experience.	19.29
IGETC GESLO Area 1 Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	16.89

IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	29.27
IGETC GESLO Area 4 Analyze and critique data, perspectives, trends, concepts, and issues pertaining to human social function and experience.	21.68
IGETC GESLO Area 5 Examine and evaluate issues related to the physical and biological sciences from an evidence-based perspective and use in applied context.	19.87

<b>Ethnicity: Filipino</b> <b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 12 Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.	27.27
ISLO 13 Global Awareness and Ethics: Evaluate and determine if a given set of economic, social and environmental systems and practices are sustainable in the long term.	20.00
IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	16.17

<b>Ethnicity: Hawaiian/Pacific Islander</b> <b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 5 Thinking and Reasoning: Assess and analyze data and information as they investigate issues and solve problems.	22.22
ISLO 7 Information Competency: Research topics by identifying, analyzing and assessing the ideas from a variety of sources to conduct research.	21.06
ISLO 8 Information Competency: Students will use print material and technology to identify research needs and develop and evaluate information effectively and responsibly.	25.00
ISLO 11 Global Awareness and Ethics: Analyze and evaluate the influence that science, mass media, politics, socio-economics, technology, lifestyle, art, environment, religion or history have on society.	22.22
SWC GESLO B Examine issues related to the natural sciences from an evidence-based perspective and use in applied contexts	23.07
SWC GESLO C Evaluate and critique the influence of artistic techniques and expression on culture and society.	25.92
SWC GESLO D Identify and analyze data, perspectives, trends, concepts or issues pertaining to human social function and experience.	27.27
CSU GESLO B Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data in order to effectively problem-solve issues in a variety of contexts.	17.08

CSU GESLO C Evaluate and critique the influences of artistic techniques and expression on culture and society.	15.79
CSU GESLO D: Identify and analyze data, perspective, trends, concepts, and issues pertaining to human social function and experience.	25.00
IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	16.66
IGETC GESLO Area 3 Evaluate and critique the influence of artistic techniques and expression on culture and society.	17.74
IGETC GESLO Area 4 Analyze and critique data, perspectives, trends, concepts, and issues pertaining to human social function and experience.	27.78
IGETC GESLO Area 5 Examine and evaluate issues related to the physical and biological sciences from an evidence-based perspective and use in applied context.	17.14

<b>Ethnicity: Hispanic ≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 12 Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.	22.15
ISLO 13 Global Awareness and Ethics: Evaluate and determine if a given set of economic, social and environmental systems and practices are sustainable in the long term.	16.67
ISLO 15 Aesthetic Sensitivity and Historical Literacy: Demonstrate creative thinking and artistic sensitivity in creating works of art and effectively describe the artistic processes used.	13.66
ISLO 16 Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural, and aesthetic qualities of works of art.	16.50
SWC GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	15.94
SWC GESLO B Examine issues related to the natural sciences from an evidence-based perspective and use in applied contexts.	16.93
SWC GESLO D Identify and analyze data, perspectives, trends, concepts or issues pertaining to human social function and experience.	15.55
CSU GESLO B Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data in order to effectively problem-solve issues in a variety of contexts.	17.05
CSU GESLO D: Identify and analyze data, perspective, trends, concepts, and issues pertaining to human social function and experience.	15.07

IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	22.60
IGETC GESLO Area 4 Analyze and critique data, perspectives, trends, concepts, and issues pertaining to human social function and experience.	15.64
IGETC GESLO Area 5 Examine and evaluate issues related to the physical and biological sciences from an evidence-based perspective and use in applied context.	16.42

<b>Ethnicity: Two or More Races</b> <b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 6 Thinking and Reasoning: Use quantitative reasoning to identify, analyze and solve quantitative problems.	17.70
ISLO 12 Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.	50.00
ISLO 14 Aesthetic Sensitivity and Historical Literacy: Identify, examine and critique the aesthetic, political, scientific, philosophical, or and historical elements of human culture.	17.55
ISLO 15 Aesthetic Sensitivity and Historical Literacy: Demonstrate creative thinking and artistic sensitivity in creating works of art and effectively describe the artistic processes used.	20.45
CSU GESLO D: Identify and analyze data, perspective, trends, concepts, and issues pertaining to human social function and experience.	17.14
IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	19.70
IGETC GESLO Area 4 Analyze and critique data, perspectives, trends, concepts, and issues pertaining to human social function and experience.	15.92

<b>Ethnicity: Unknown</b> <b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 15 Aesthetic Sensitivity and Historical Literacy: Demonstrate creative thinking and artistic sensitivity in creating works of art and effectively describe the artistic processes used.	33.33
IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	21.43

<b>Ethnicity: White</b> <b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	17.53

IGETC GESLO Area 6 Acquire proficiency using the vocabulary, syntax and semantics of a foreign language to effectively speak, read, and write using that language.	15.39
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### Identified Performance Equity Gaps by Gender

<b>Gender: Female</b> <b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 12 Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.	20.23
ISLO 13 Global Awareness and Ethics: Evaluate and determine if a given set of economic, social and environmental systems and practices are sustainable in the long term.	18.18
SWC GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	15.24
IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	20.26

<b>Gender: Male</b> <b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 6 Thinking and Reasoning: Use quantitative reasoning to identify, analyze and solve quantitative problems.	17.49
ISLO 12 Global Awareness and Ethics: Analyze and critique the ethical implications of decision making on personal behavior, and on social, political or economic institutions.	25.46
ISLO 14 Aesthetic Sensitivity and Historical Literacy: Identify, examine and critique the aesthetic, political, scientific, philosophical, or and historical elements of human culture.	16.84
ISLO 15 Aesthetic Sensitivity and Historical Literacy: Demonstrate creative thinking and artistic sensitivity in creating works of art and effectively describe the artistic processes used.	17.80
ISLO 16 Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural, and aesthetic qualities of works of art.	18.12
SWC GESLO B Examine issues related to the natural sciences from an evidence-based perspective and use in applied contexts.	16.67
SWC GESLO D Identify and analyze data, perspectives, trends, concepts or issues pertaining to human social function and experience.	16.13
CSU GESLO B Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data in order to effectively problem-solve issues in a variety of contexts.	17.77
CSU GESLO D: Identify and analyze data, perspective, trends, concepts, and issues pertaining to human social function and experience.	16.03

IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	22.48
IGETC GESLO Area 4 Analyze and critique data, perspectives, trends, concepts, and issues pertaining to human social function and experience.	16.58
IGETC GESLO Area 5 Examine and evaluate issues related to the physical and biological sciences from an evidence-based perspective and use in applied context.	16.90

<b>Gender: Unknown ≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 5 Thinking and Reasoning: Assess and analyze data and information as they investigate issues and solve problems.	16.32
ISLO 6 Thinking and Reasoning: Use quantitative reasoning to identify, analyze and solve quantitative problems.	15.79
ISLO 7 Information Competency: Research topics by identifying, analyzing and assessing the ideas from a variety of sources to conduct research.	15.52
ISLO 8 Information Competency: Students will use print material and technology to identify research needs and develop and evaluate information effectively and responsibly.	16.67
ISLO 16 Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural, and aesthetic qualities of works of art.	16.67
CSU GESLO D: Identify and analyze data, perspective, trends, concepts, and issues pertaining to human social function and experience.	15.87

### Identified Performance Equity Gaps by Modality

<b>Modality: Face-to-Face (Fall 2019) ≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 3 Communication Skills: Analyze and evaluate text in writing.	15.91
ISLO 7 Information Competency: Research topics by identifying, analyzing and assessing the ideas from a variety of sources to conduct research.	15.85
ISLO 16 Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural, and aesthetic qualities of works of art.	16.31
CSU GESLO B Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data in order to effectively problem-solve issues in a variety of contexts.	15.59
IGETC GESLO Area 3 Evaluate and critique the influence of artistic techniques and expression on culture and society.	15.59

<b>Modality: Online (Fall 2020)</b> <b>≤ 15% Low–Proficiency and No Proficiency Combined</b>	<b>%</b>
ISLO 6 Thinking and Reasoning: Use quantitative reasoning to identify, analyze and solve quantitative problems.	19.89
ISLO 16 Aesthetic Sensitivity and Historical Literacy: Analyze and critique the philosophical, technical, historical, cultural, and aesthetic qualities of works of art.	16.59
SWC GESLO A Demonstrate critical thinking by analyzing and creating central arguments and lines of reasoning.	21.83
CSU GESLO B Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data in order to effectively problem-solve issues in a variety of contexts.	17.03
IGETC GESLO Area 2 Analyze and apply mathematical concepts and scientific methods to interpret and to evaluate data to effectively problem-solve issues in a variety of contexts.	25.05
IGETC GESLO Area 3 Evaluate and critique the influence of artistic techniques and expression on culture and society.	15.10