Crafton Hills College - Outcomes Assessment Report

General Education Outcome: Natural Science   **Assessed:** 2024-2025

Learning Outcomes Statement

Students successfully completing a course in this area will be able to apply a problem solving strategy such as the scientific method or other systematic process of inquiry and to recognize the contributions of science and technology in our world.

Means of Assessment (Measurement Method)

Students were assessed during either the Fall 2024 or Spring 2025 semesters. Assessments occurred in 377 sections and resulted in a total of 7,317 assessments.

Summary of Evidence

Table 1: Number and Percent of students scoring 3 or Higher on the GEO.

GEO #	General Education Outcome	# 3 or higher	% 3 or higher
1	Students successfully completing a course in this area will be able to apply a problem solving strategy such as the scientific method or other systematic process of inquiry and to recognize the contributions of science and technology in our world.	5,630	76.94%

List of courses where outcomes were mapped to the GEO (46 Unique Courses).

ANAT-101	FIRET-102	MICRO-150
ANAT-150	FIRET-118	PHYSIC-100
ANAT-151	GEOG-110	PHYSIC-250
ASTRON-150	GEOL-100	PHYSIC-251
ASTRON-160	GEOL-101	PHYSIC-252
BIOL-100	GEOL-101H	RESP-132
BIOL-130	GEOL-160	
BIOL-130H	GEOL-180	
BIOL-131	GEOL-246B	

BIOL-131H	GEOL-251	
CHEM-101	HIT-101	
CHEM-102	KIN/S-116A	
CHEM-123	KIN/S-116B	
CHEM-150	KIN/S-116C	
CHEM-151	KIN-231	
CHEM-212	MARKET-100	
CHEM-213	MATH-160	
CIS-101	MATH-251	
CSCI-230	MATH-902	
CSCI-240	MICRO-102	

Use of Results/Proposed Actions – Individual Submissions

1	Several adjustments were made throughout the semester better to support students with no prior experience in physics. For example, lectures incorporated a progression of examples, ranging from basic to more advanced, allowing students to practice in collaborative group settings. Additionally, more handouts were provided to ensure students had resources for independent study. A significant improvement in student performance was observed after the first quiz, indicating the effectiveness of these strategies.
2	**Reflection on Successes and Challenges in This Class** Successes: - Implemented new teaching strategies that led to a 97% success rate in key areas. - Added content that enhanced student engagement and understanding. - Notable improvement in class performance, demonstrated by stronger exam scores and participation. - Identified and addressed learning gaps through targeted review sessions. Future Actions: - Continue offering an opportunity for students to give feedback and suggestions on how to make the class more successful. - Continue exploring new teaching strategies to further improve student comprehension. - Recommend adjustments to content and assessments to align with observed learning trends. - Consider modifying Student Learning Outcomes (SLOs) based on student performance data. - Enhance support for struggling students by incorporating additional practice resources.
3	Additional review sessions should be incorporated into the course, along with increased referrals to the STEM/Tutoring Center. Students who received a D or F typically demonstrated significant weaknesses in mathematics. Among the six students who did not pass the course with a grade of C or better, four faced challenges due to language barriers.

	This highlights the need for targeted strategies to support students in overcoming difficulties with the English language.
4	Although all outcomes were met, I would like to implement more study/review session either online through zoom or in person. Students have access to customized lecture notes, study guides, and practice items. This may not be enough to fully motivate them. Student's seem to respond well to in-lecture activities where they work in groups. I hope to implement more of these.
5	As the benchmark for success is 70%, only the third SLO Statement 1 was successful. There does not appear to be any
6	As the benchmark for success is 70%, only the third SLO Statement 1 was successful. There does not appear to be any equity gaps in the data. The first SLO data has been low for the last couple of years, as well as the second. This instructor will try new learning strategies to improve these two SLO's.
7	As this is a new class, I focused on lab performance. As shown lab performance is acceptable (lacking from one student), with some room for improvement. In subsequent terms I plan to focus on performance in the lecture portion of the course.
8	As this is a new class, I focused on lab performance. As shown lab performance is acceptable, with some room for improvement. In subsequent terms I plan to focus on performance in the lecture portion of the course.
9	As this is a new class, I focused on lab performance. As shown lab performance is lacking, with much room for improvement. The lab portion of class needs work. In subsequent terms I plan to focus on performance in the lecture portion of the course.
10	Assign student to different group.
11	Assigned an activity related to this outcome which, I believe, increased the scores significantly from last semester.
12	Based on student feedback, new content and strategies were implemented to improve clarity and understanding of the material. The adjustments appear to have been effective, as the data indicates no identifiable learning gaps. However, it was noted that a couple of students stopped attending, which may have impacted overall participation. This section, being the last of the semester and the last to fill, could contribute to lower engagement due to scheduling challenges or student fatigue. Moving forward, continued monitoring and feedback will ensure sustained success while exploring ways to maintain attendance and engagement in this section.
13	Based on student feedback, new content and strategies were implemented to improve clarity and understanding of the material. The adjustments appear to have been effective, as the data indicates no identifiable learning gaps. This reflects a successful alignment of course delivery with student needs, suggesting that the changes positively impacted student comprehension and learning outcomes. Moving forward, continued monitoring and feedback will ensure sustained success.

14	Based on the current rubric, only 4s and 3s are counted as "met %" even though 2s are defined as 70% - 79%, it is NOT currently counted as part of the met %. With only 4s and 3s counted, the 36.0% met target goal. But leaving out the 2s from the rubric lowered the ANAT met goals. With the 2s counted in with the 4s and 3s, this course's true % is 60.0%, with met the ANAT target goal. New anatomical models were added into the lab portion of this section. Yes, students are more interactive. The learning gap is seen in the attendance, but there not much that can be done if students do not want to attend lecture and/or lab. They prefer to show up for lecture exams and lab practicals even though attendance is tracked with sign-in sheets. For the future, I've contacted the Research department to include 2s in the rubric as a "met" % instead of not counting as "met" currently. Additionally, encourage student to seek tutoring services and other services on campus.
15	Based on the current rubric, only 4s and 3s are counted as "met %" even though 2s are defined as 70% - 79%, it is NOT currently counted as part of the met %. With only 4s and 3s counted, the 42.3% met target goal. But leaving out the 2s from the rubric lowered the ANAT met goals. With the 2s counted in with the 4s and 3s, this course's true % is 61.5%. New anatomical models were added into the lab portion of this section. Yes, students are more interactive. The learning gap is seen in the attendance, but there not much that can be done if students do not want to attend lecture and/or lab. They prefer to show up for lecture exams and lab practicals even though attendance is tracked with sign-in sheets. For the future, I've contacted the Research department to include 2s in the rubric as a "met" % instead of not counting as "met" currently. Additionally, encourage student to seek tutoring services and other services on campus.
16	Based on the current rubric, only 4s and 3s are counted as "met %" even though 2s are defined as 70% - 79%, it is NOT currently counted as part of the met %. With only 4s and 3s counted, the 52.0% met target goal. But leaving out the 2s from the rubric lowered the ANAT met goals. With the 2s counted in with the 4s and 3s, this course's true % is 68.0, which met the ANAT target goal. New anatomical models were added into the lab portion of this section. Yes, students are more interactive. The learning gap is seen in the attendance, but there not much that can be done if students do not want to attend lecture and/or lab. They prefer to show up for lecture exams and lab practicals even though attendance is tracked with sign-in sheets. For the future, I've contacted the Research department to include 2s in the rubric as a "met" % instead of not counting as "met" currently. Additionally, encourage student to seek tutoring services and other services on campus.

17	Based on the current rubric, only 4s and 3s are counted as "met %" even though 2s are defined as 70% - 79%, it is NOT currently counted as part of the met %. With only 4s and 3s counted, the 63.0% met target goal. But leaving out the 2s from the rubric lowered the ANAT met goals. With the 2s counted in with the 4s and 3s, this course's true % is 81.5%, which met the ANAT target goal. This is expected as this course has a pre-req of ANAT 150 and students are better prepared going into the course.

New anatomical models were added into the lab portion of this section. Yes, students are more interactive. The learning gap isn't seen as much as the entry level ANAT courses. Students who does not show up had a tendency to not fare well even though this is mentioned throughout the semester.

For the future, I've contacted the Research department to include 2s in the rubric as a "met" % instead of not counting as "met" currently. Additionally, encourage student to seek tutoring services and other services on campus. We have plans to continue with Lecture exams and lab practical for use of SLO assessments. |
| 18 | Based on the current rubric, only 4s and 3s are counted as "met %" even though 2s are defined as 70% - 79%, it is NOT currently counted as part of the met %. With only 4s and 3s counted, the 63.3% met target goal. But leaving out the 2s from the rubric lowered the ANAT met goals. With the 2s counted in with the 4s and 3s, this course's true % is 76.6%.

New anatomical models were added into the lab portion of this section. Yes, students are more interactive. The learning gap is seen in the attendance, but there not much that can be done if students do not want to attend lecture and/or lab. They prefer to show up for lecture exams and lab practicals even though attendance is tracked with sign-in sheets.

For the future, I've contacted the Research department to include 2s in the rubric as a "met" % instead of not counting as "met" currently. Additionally, encourage student to seek tutoring services and other services on campus. |
| 19 | Based on the current rubric, only 4s and 3s are counted as "met %" even though 2s are defined as 70% - 79%, it is NOT currently counted as part of the met %. With only 4s and 3s counted, the 65.4% met target goal. But leaving out the 2s from the rubric lowered the ANAT met goals. With the 2s counted in with the 4s and 3s, this course's true % is 88.5%, which met the ANAT target goal. This is expected as this course has a pre-req of ANAT 150 and students are better prepared going into the course.

New anatomical models were added into the lab portion of this section. Yes, students are more interactive. The learning gap isn't seen as much as the entry level ANAT courses. Students who does not show up had a tendency to not fare well even though this is mentioned throughout the semester.

For the future, I've contacted the Research department to include 2s in the rubric as a "met" % instead of not counting as "met" currently. Additionally, encourage student to seek tutoring services and other services on campus. We have plans to continue with Lecture exams and lab practical for use of SLO assessments. |

20	Based on the current rubric, only 4s and 3s are counted as "met %" even though 2s are defined as 70% - 79%, it is NOT currently counted as part of the met %. With only 4s and 3s counted, the 67.7% met target goal. But leaving out the 2s from the rubric lowered the ANAT met goals. With the 2s counted in with the 4s and 3s, this course's true % is 83.9%, which met the ANAT target goal. This is expected as this course has a pre-req of ANAT 150 and students are better prepared going into the course. New anatomical models were added into the lab portion of this section. Yes, students are more interactive. The learning gap isn't seen as much as the entry level ANAT courses. Students who does not show up had a tendency to not fare well even though this is mentioned throughout the semester. For the future, I've contacted the Research department to include 2s in the rubric as a "met" % instead of not counting as "met" currently. Additionally, encourage student to seek tutoring services and other services on campus. We have plans to continue with Lecture exams and lab practical for use of SLO assessments.
21	Based on the current rubric, only 4s and 3s are counted as "met %" even though 2s are defined as 70% - 79%, it is NOT currently counted as part of the met %. With only 4s and 3s counted, the 73.3% met target goal. But leaving out the 2s from the rubric lowered the ANAT met goals. With the 2s counted in with the 4s and 3s, this course's true % is 90.0%, which met the ANAT target goal. This is expected as this course has a pre-req of ANAT 150 and students are better prepared going into the course. New anatomical models were added into the lab portion of this section. Yes, students are more interactive. The learning gap isn't seen as much as the entry level ANAT courses. Students who does not show up had a tendency to not fare well even though this is mentioned throughout the semester. For the future, I've contacted the Research department to include 2s in the rubric as a "met" % instead of not counting as "met" currently. Additionally, encourage student to seek tutoring services and other services on campus. We have plans to continue with Lecture exams and lab practical for use of SLO assessments.
22	Based on the current rubric, only 4s and 3s are counted as "met %" even though 2s are defined as 70% - 79%, it is NOT currently counted as part of the met %. With only 4s and 3s counted, the 75.9% met target goal. But leaving out the 2s from the rubric lowered the ANAT met goals. With the 2s counted in with the 4s and 3s, this course's true % is 89.6%, which met the ANAT target goal. This is expected as this course has a pre-req of ANAT 150 and students are better prepared going into the course. New anatomical models were added into the lab portion of this section. Yes, students are more interactive. The learning gap isn't seen as much as the entry level ANAT courses. Students who does not show up had a tendency to not fare well even though this is mentioned throughout the semester. For the future, I've contacted the Research department to include 2s in the rubric as a "met" % instead of not counting as "met" currently. Additionally, encourage student to seek tutoring services and other services on campus. We have plans to continue with Lecture exams and lab practical for use of SLO assessments.

23	CHEM 213 – SLO Reflection and Commentary This section of CHEM 213 demonstrated consistent effort and engagement, with 7 students earning a B and 6 earning a C. All students passed, indicating a solid grasp of the course's foundational and intermediate-level organic chemistry concepts. While there were no A-level outcomes, the absence of failing grades reflects overall success in meeting the core Student Learning Outcomes (SLOs), particularly in reaction mechanisms, synthesis design, and spectral analysis. This term, I implemented enhanced scaffolding in multistep synthesis problems and incorporated optional review videos for complex NMR and IR interpretation. I also added real-world examples—such as pharmaceutical case studies—to better connect abstract mechanisms to applied chemistry. These strategies helped reinforce content and encouraged student persistence, even in more challenging modules. Despite this progress, students continued to struggle with integrating multiple concepts in novel synthesis scenarios, especially those requiring retrosynthetic analysis or interpreting combined spectral data. This reveals a persistent learning gap in applying accumulated knowledge across units. Looking ahead, I plan to introduce more peer-led problem-solving and require earlier engagement with cumulative synthesis problems. I will also review assessment rubrics to ensure we distinguish between partial understanding and full mastery in multistep mechanisms. No changes to the SLOs are currently recommended, though I may propose adjusting the weighting of certain assessments to better reflect the emphasis on synthesis and critical thinking.
24	Continue to encourage students to be attentive in class and follow directions carefully.
25	Continue to refine curriculum to reflect industry best practices.
26	Continue to update curriculum to reflect best practices associated with industry standards.
27	Continue to update curriculum to reflect current best practices in industry.
28	Continue to update curriculum to reflect current best practices of industry.
29	Continue to update curriculum to reflect current industry standards best practices.
30	Continue to update curriculum to reflect current industry standards of best practices.
31	create more group work and more activities that related to real life.
32	Current strategies appear to be working as intended. Perhaps data design could be updated in the future.
33	Current strategies appear to be working well.Perhaps the data design and analysis procedures could be updated.
34	develop hands-on lab practice and assessments at the departmental level
35	During this semester, we increased engagement in active learning such as student collaboration, group work at the whiteboards, exam reflections, etc. I am pleased to see the student performance as it relates to this SLO. Also, I am focused on how to reach the approximately 40% of the students that did not meet this SLO.
36	Encourage students to take more pictures of the models during lab and highlight certain highly tested areas.
37	everything according to expectations

38	Exam scores were low, continue to encourage attending office hours and going to tutoring.
39	Exam scores were lower than usual, will continue to encourage office hours and tutoring.
40	For all three SLO's, the targets was were met as: * 76.9% is greater than the benchmark of 70%.
41	For all three SLO's, the targets was were met as: SLO Statement 1: Disabled - not a departmental SLO SLO Statement 2: 70.6% is greater than the benchmark of 70%. SLO Statement 3: 76.5 SLO Statement 4: 70.6
42	For all three SLO's, the targets was were met as: SLO Statement 1: Disabled - not a departmental SLO SLO Statement 2: 70.6% is greater than the benchmark of 70%. SLO Statement 3: 76.5% is greater than the benchmark of 70%. SLO Statement 4: 70.6% is greater than the benchmark of 70%. There does not appear to be any equity gaps in this data. There are no proposed actions at this time.
43	For all three SLO's, the targets was were met as: SLO Statement 1: Disabled - not a departmental SLO SLO Statement 2: 89.5% is greater than the benchmark of 70%. SLO Statement 3: 78.9% is greater than the benchmark of 70%. SLO Statement 4: 78.9% is greater than the benchmark of 70%. There does not appear to be any equity gaps in this data. There are no proposed actions at this time.
44	For SLO 0, no proposed actions are
45	For SLO 0, there are no proposed actions.
46	For SLO 0, there are no proposed actions. For second and third SLO's, the targets was not met. The department may consider modifying this outcome or replacing this outcome for something different.
47	For SLO 0, there are no proposed actions. For SLO 01, the target was was met as 76.9% is greater than the benchmark of 70%. We note that this may be an indicator of an equity gap. This instructor will continue to encourage underperforming students to take advantage of MESA and the STEM center. For SLO 011, the target was not met. The department may consider modifying this outcome or replacing this outcome for something different.
48	For the first SLO, there are no proposed actions. For the second SLO, the target was was met as 76.9% is greater than the benchmark of 70%. We note that this may be an indicator of an equity gap. This instructor will continue to encourage underperforming students to take advantage of MESA and the STEM center. For third SLO, the target was not met. The department may consider modifying this outcome or replacing this outcome for something different.

49	For the group project I am going to try the self sign up feature on Canvas to see if that helps engage students in the product and be more successful communicating with students. the students who actively participate have good success. I am not sure how to engage the students in obtaining their certification.
50	For this section, we have met our goals. However, it should be noted that a "C" grade should contribute to the "Met" percentage as it is passing for the course and that the student has met satisfactory understanding, although not excellent. An assessment modification would be to add a "C" grade to count towards the "Met" percentage. Strategies that would help student performance inside the classroom: 1. Increased review sessions either in person and/or through zoom. 2. Additional review items (in addition to already provided study guides and practice items). Strategies that would improve student performance outside of the classroom: 1. Recommending students to the STEM center. 2. Recommending students to the Learning Center/Tutoring center. 3. Assigning regular meetings during office hours for struggling students.
51	Group project might be a better way.
52	Group projects might be a better way to improve the result.
53	Having students practice their measurement skills each week greatly improved the outcome of the lab practical exam (SLO #3). Lab final multiple choice section (SLO #5) scores still low, more emphasis on reviewing those formulas next semester.
54	I am just hoping for proper equipment to run the class the way it should be instructed.
55	I did not use a polling application this semester due to the fact that the free versions are becoming more restrictive. Over the summer, I will be looking for an alternative as I believe this helps the students assess their own learning. I am witnessing, with a majority of my students, a disinterest in learning the content (sleeping, looking at their phone, not showing up). I had a very hard time getting them to engage with me during class, even when extra credit was offered. I do have great students who are engaged and learning, but they are the minority unfortunately. Although I make my content relatable, I plan on restructuring my course over the summer to include more real-life applications associated with the content; this may involve researching new finding new materials that will be free to students.
56	I had success with most of the students. The challenge came to students completing work on schedule. Next term I will try a more flexible schedule and more proactive communication.
57	I have been changing my classes each semester to find what works best for me. This semester I tried taking roll but not counting it towards the final grade, as well as changing the formula I use for accepting late work. I will continue to make adjustments to these as well as other aspects of my classes to benefit my students

58	I have been changing my classes each semester to find what works best for me. This semester I tried taking roll but not counting it towards the final grade, as well as changing the formula I use for accepting late work. I will continue to make adjustments to these as well as other aspects of my classes to benefit my students.
59	I plan to continue using methods such as encouraging students to attend/participate in lecture, attend lab, and utilize my office hours.
60	I plan to continue with the current methods of encouraging students to come to class, come to lab, and participate in my office hours.
61	Keep with what is working well
62	MMM
63	More student peer teaching
64	Most of the students that received a value of 1 dropped before this SLO was assessed.
65	n/a
66	Notable academic improvement was observed for this class, with 18 A grades, 11 B grades, 2 C grades, and 1 F grade.
67	Our class did meet the expectations. However, we are continuously trying to improve. Strategies in the classroom would be to offer additional review sessions either in person or via Zoom/Online. Outside of the classroom, would be to recommend campus resources such as the STEM Center and Learning Center to help students who are earning non-passing or "C" grades to get into the "B" and "A" grade ranges.
68	Our class did NOT meet the expectations. We are continuously trying to improve. Strategies in the classroom would be to offer additional review sessions either in person or via Zoom/Online. Outside of the classroom, would be to recommend campus resources such as the STEM Center and Learning Center to help students who are earning non-passing or "C" grades to get into the "B" and "A" grade ranges.
69	Outcomes were taken from questions from exams and/or worksheets. For this assessment, we met our goal. I will continue implementing these concepts in both lecture and in lab. Modification to assessment: For assessment items or grades of "C", these items should count towards the goals "Met" as they are considered passing. New strategies include additional labs that tests student learning in regards to popular science articles and scientific literacy. Improving learning gaps would include promoting regular visits to the learning center, STEM center, and Tutoring center. Additionally, students who are struggling may benefit from assigned office hour regular meetings.
70	Outcomes were taken from questions from exams and/or worksheets. For this assessment, we met our goal. I will continue implementing these concepts in both lecture and in lab. New strategies include additional labs that tests student learning in regards to popular science articles and scientific literacy. Improving learning gaps would include promoting regular visits to the learning center, STEM center, and Tutoring center.

	Additionally, students who are struggling may benefit from assigned office hour regular meetings.
71	Overall this was a strong class with only a few students who struggled in math. Typically students who struggle with math, struggle in CHEM 151. This was a good group of students mathwise.
72	Plans continue to alter labs to include more activities using and applying the scientific method, as well as techniques for gathering data
73	Reflect and comment on the successes and challenges in this class. Did you: *Try new strategies? Provided class notes for students. *Add content? Content remains to course outline report. *See notable improvement in class performance? Can't tell as this is the first time for student-level outcomes. *Identify any learning gaps? Lack of attendance affected the performance of this section. In future will you *Try new strategies? Plan on introducing more practice questions. *Make recommendations for content, assessment, or SLO modification? May adjust the number of SLOs.
74	Reflect and comment on the successes and challenges in this class. Did you: *Try new strategies? Provided class notes for students. *Add content? Content remains to course outline report. *See notable improvement in class performance? Can't tell as this is the first time for student-level outcomes. *Identify any learning gaps? None In future will you *Try new strategies? Not planning on it as goal is met. *Make recommendations for content, assessment, or SLO modification? May adjust the number of SLOs.
75	Reflect and comment on the successes and challenges in this class. Did you: *Try new strategies? Provided class notes for students. *Add content? Content remains to course outline report. *See notable improvement in class performance? Can't tell as this is the first time for student-level outcomes. *Identify any learning gaps? Seems to have more than average of dropped students. In future will you *Try new strategies? Not planning on it as goal is met. *Make recommendations for content, assessment, or SLO modification? May adjust the number of SLOs.

76	Reflect and comment on the successes and challenges in this class. Did you: *Try new strategies? Handed out course notes at the beginning of the semester, but realized that students stopped coming to class. *Add content? I've covered the content in the course outline of records. Added new chapter homework as extra credit and few tends to take advantage of this opportunity. *See notable improvement in class performance? This is the first time for student-level assessment, so no previous data to compared to. *Identify any learning gaps? Attendance seem to be the 'gap'. Students will show up on Exam days. This may be due to handing out course notes, maybe? In future will you *Try new strategies? I may try to not hand out notes and students have to come to class and take notes. I'll try asking students to come to office hours and go to peer tutors again. *Make recommendations for content, assessment, or SLO modification? I'm not sure how modifying the assessment process will help because we have to teach to the course content on record.
77	Reflect and comment on the successes and challenges in this class. Did you: *Try new strategies? Handed out course notes at the beginning of the semester, but realized that students stopped coming to class. *Add content? I've covered the content in the course outline of records. Added new chapter homework as extra credit and few tends to take advantage of this opportunity. *See notable improvement in class performance? This is the first time for student-level assessment, so no previous data to compared to. *Identify any learning gaps? Attendance seem to be the 'gap'. Students will show up on Exam days. This may be due to handing out course notes, maybe? In future will you *Try new strategies? I may try to not hand out notes and students have to come to class and take notes. I'll try asking students to come to office hours and go to peer tutors again. *Make recommendations for content, assessment, or SLO modification? I'm not sure how modifying the assessment process will help because we have to teach to the course content on record.

78	Reflecting on the outcomes of this class, it is important to acknowledge both the successes and the challenges experienced by our diverse group of students. Out of the total, four students earned an A, nine achieved a B, and four received a C. These results demonstrate the varied strengths and opportunities for growth within our student population.

The overall performance of the class indicates that many students engaged meaningfully with the material and demonstrated a strong understanding of core concepts. The distribution of grades suggests that a significant portion of students met or exceeded expectations, which is a testament to their commitment and the effectiveness of the instructional approaches used. The incorporation of diverse teaching methods, including visual aids, interactive discussions, and culturally responsive content, likely contributed to student success.

Despite these successes, there remain areas for improvement, particularly in ensuring equitable learning opportunities for all students. Some students may have faced challenges related to external responsibilities, differing educational backgrounds, or varying levels of preparedness. Identifying and addressing these challenges is essential to fostering a more inclusive learning environment.

Several new strategies were introduced to support diverse learning needs, including peer mentoring opportunities, additional office hours, and the use of digital resources to accommodate different learning styles. |
| 79 | Review math more and work on students developing a stronger foundation of math and chemistry |
| 80 | Revise SLOs, update repetitious ones and include new ones to focus on other aspects of the course, not solely the laboratory.

Microbiology requires more than analyzing the Unknown Project grandfathered in from professor Shimeld's course design. I propose integrating additional ILOs (2, 5, possibly 4). As well as integrate Communication and Skillset PLOs. This will ideally require recrafting assignments and content to be able to measure these.

The Microbiology Series have been largely successful at completing the goals of training students beyond the classroom. Proposals arise on increasing retention beyond the first or second term (recruitment and retention) and regarding expanding the basic levels of research performed due to limited materials (financial support for materials). |

81	Revise SLOs, update repetitious ones and include new ones to focus on other aspects of the course, not solely the laboratory.

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84	See notable improvements in class performance by assigning class homework for students to practice outside classroom and tagging structures for students to hand-on learning in lab after a lab introduction.
85	Several adjustments were made throughout the semester better to support students with no prior experience in physics. For example, lectures incorporated a progression of examples, ranging from basic to more advanced, allowing students to practice in collaborative group settings. Additionally, more handouts were provided to ensure students had resources for independent study. A significant improvement in student performance was observed after the first quiz, indicating the effectiveness of these strategies.
86	Several of the students who received a value of 1 were not accessed on the SLO. They dropped the course before the assessment.
87	Spend more time on basics.

88	Strategies being implemented seem to be working as intended. Potential issues with graphing literacy. Will work to establish lessons for building this skill.
89	Strategies in place appear to be working well. Potential learning gaps could be in constructing graphs.
90	Student work part-time jobs.
91	Students need more time to comprehend the needed skills to be successful.
92	Students were affected by cancelation of almost two weeks of classes due to fires near by.
93	students who did not success (grade of D) did not participate in extra credit opportunities. need improvement on how to engage these students more.
94	Successes: - Implemented new teaching strategies that led to a 97% success rate (4/4) in key areas. - Added content that enhanced student engagement and understanding. - Notable improvement in class performance, demonstrated by stronger exam scores and participation. - Identified and addressed learning gaps through targeted review sessions. Future Actions: - Continue exploring new teaching strategies to further improve student comprehension. - Continue to offer students an opportunity to give course feedback and suggestions for improvement. - Recommend adjustments to content and assessments to align with observed learning trends. - Consider modifying Student Learning Outcomes (SLOs) based on student performance data. - Enhance support for struggling students by incorporating additional practice resources.
95	The big challenge with this class was weak math skills. Many students struggled with pre-algebra. Some students improved. A new strategy I can try is do a more thorough math review at the beginning of the semester.
96	The class performance reflect the students learning and understanding the concepts of Anatomy and Physiology in this class. This course doesn't suggest for any change in teaching strategies. There is no data available to see and compare the strength and weakness in class performance. There is no identify in learning gaps for improvement. There is no need to change the teaching strategies in the future. Thus far, no recommendation can be made for content, assessment, or SLO modification,
97	The majority of students did consistently well across all SLOs with only a small handful not improving their score or, even more rarely, worsening it. Overall, these subjects were well covered in class, but I am keen on incorporating new strategies in the future. Notably, I will increase the quality of visual learning material during lecture by including powerpoint slides to better illustrate physical phenomena and highlight important concepts while using the board for derivations. In addition, I will encourage attendance and class participation by assigning extra credit points to in class discussion problems. Furthermore, I will increase the number of homework problems to provide more practice and question variety while also setting the tempo of the class early on.

98	The new strategies that I did was to do our course exercises as a class, by doing that students were able to understand how to interpret the medical terminology. I also showed short 5 minute videos for certain chapters that were more in depth then others. In doing so the students had a better understanding of the body system. I also gave the students free range for their disease presentation. In doing so students were more eager to do research on their choice of disease, and were motivated to present it to their peers. In the future I will provide a print out of the first 3 chapters of course exercises, for those students who are waiting for their books to arrive. I am going to do this, so my students do not fall behind.
99	The target was met.
100	The two students that received a rubric of 1 dropped before this SLO was assessed. So technically, the target was met with the students present.
101	There was notable improvement in class performance for all SLOs.
102	There were students who had never been asked to think past what is written. It is nothing other than they need more experience with this type of thinking and with maturity they will start to improve with this. There is nothing that I would change, it is just an overall learning process and some learn faster than others. Overall, I think the class did well.
103	This is my first time teaching this course. What I did different from the previous professor I assigned homework and I would use real life examples and tie that in to my lecture. In the future I am going to do worksheets for them on topics that are more challenging to comprehend.
104	This online class had a larger number of students who did not complete the class. In the future I will spread out the final project in smaller, graded, pieces, instead of only grading the final outcome.
105	this was a small section so it was hard to determine if there were any areas I can improve on. this is first time using OER and that seemed to work well but I would like to add some other additional OER to the course for the students to learn from.
106	This was an online/hybrid class. A better connection with the students will try to be established.
107	This was an unusual semester, as four of the seven students would not show up to the lab sessions consistently. These same four students would not be able to recall the ideas and concepts from the co-requisite lecture, as if the lecture and lab were unconnected. This instructor and this department is open to any ideas to address this issue.
108	Throughout the term, I implemented new instructional strategies, including more interactive group work and differentiated assignments, which helped engage a broader range of learners. These strategies contributed to the successes seen in the top-performing students. I also introduced additional content to support core concepts, particularly in response to observed learning gaps in foundational skills. While this benefited many students, the presence of several Cs and a D suggests some students still struggled with comprehension and retention. In the future, I plan to continue experimenting with teaching methods, especially formative assessments to better monitor ongoing understanding.

109	Try new strategies? No, for now, since this semester is the first assessing the students. However, this is a good baseline for future classes, and I am open to trying new strategies. Add content? No, at this time. Identify any learning gaps? Time management and reading comprehension. Try new strategies? I will encourage students to use tutoring centers and my office hours. Make recommendations for content, assessment, or SLO modification? No, at this point.
110	Try new strategies? This serves as a good baseline for future classes, and I am open to trying new approaches strategies. Add content? No, at this time. Identify any learning gaps? Time management and reading comprehension. Try new strategies? I will encourage students to use tutoring centers and my office hours. Make recommendations for content, assessment, or SLO modification? All students with a C grade were placed in slot number 3, since the Anatomy department considers a passing score to be C. 59.99% - and less = F 69.99% - 60.00% = D 79.99 % - 70.00%= C 89.99% - 80.00% = B 100.00% - 90.00%= A
111	Try new strategies? This serves as a good baseline for future classes, and I am open to trying new approaches strategies. Add content? No, at this time. Identify any learning gaps? Time management and reading comprehension. Try new strategies? I will encourage students to utilize tutoring centers and take advantage of my office hours. Make recommendations for content, assessment, or SLO modification? All students with a C grade were placed in slot number 3, since the Anatomy department considers a passing score to be a C. 59.99% - and less = F 69.99% - 60.00% = D 79.99 % - 70.00%= C 89.99% - 80.00% = B 100.00% - 90.00%= A
112	two students stopped showing up to class. three students struggled with the material and need a better solid understanding of the pre-requirement course. The rest of the students were well rounded,