2017-2022 Natural Science / Mathematics Instructional Program Review

LASSEN COMMUNITY COLLEGE

Tiffany Baiocchi	Biology Instructor
Michael Blaschak	Instructional Support Specialist II
Noelle Eckley	Mathematics Instructor
Yuting Lin	Chemistry Instructor
Natalia McClellan	Mathematics Instructor
Jackson Ng	Mathematics Instructor
Robert Schofield	Mathematics Instructor
Crystal Tobola	Biology Instructor

Accepted by Academic Senate: (4/27/22)
Accepted by Consultation Council: (5/9/22)
Accepted by Governing Board: (5/10/22)

Table of Contents

Natural Science / Mathematics IPR

SECTION ONE: ACADEMIC PLANNING

I. Program Overview, Objectives, and Student Learning Outcomes

Description / Evaluation:

a. statement and strategic goals [available online or in the current catalog]. Maps may be utilized to help illustrate ideas.

Lassen Community College Mission Statement

Lassen Community College provides educational programs for all pursuing higher education goals. The core programs offer a wide range of educational opportunities including transfer degrees and certificates, economic and workforce development, and basic skills instruction. The College serves diverse students, both on campus and in outreach areas in its effort to build intellectual growth, human perspective and economic potential.

The Natural Science / Math program includes the following degrees:

- Associate in Science Degree in Biology for Transfer
- Associate in Arts Degree General Studies: Emphasis in Natural Science
- Associate in Arts Degree University Studies: Emphasis in Natural Science
- Associate in Science in Nutrition and Dietetics for Transfer

In addition, the program includes courses meeting the requirements of the following areas:

- Area B Scientific Inquiry and Quantitative Reasoning of the California State University (CSU) General Education Certification,
- Area 2 Mathematical Concepts and Quantitative Reasoning and Area 5 Physical and Biological Sciences of the Intersegmental General Education Transfer Curriculum (IGETC) as well as
- Area A Natural Science and Area D2 Communication and Analytical Thinking of the Career Technical and General Studies associate degrees.

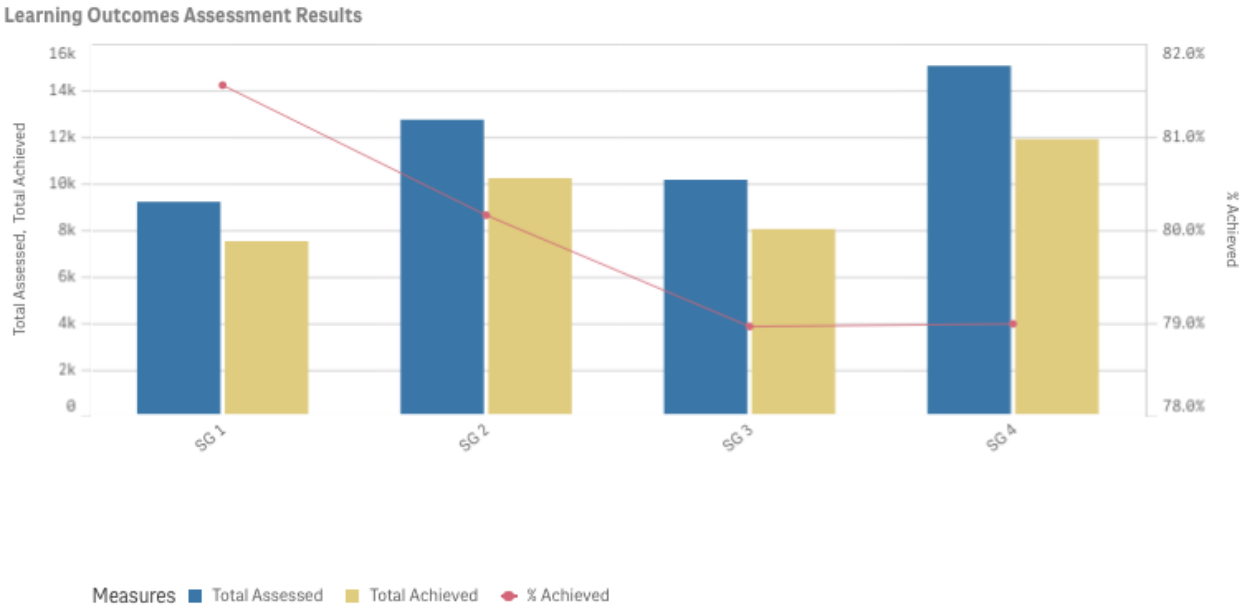
With this, the program contributes to the successful completion of either CSU General Education Certificate of Achievement or the IGETC Certificate of Achievement. The program objectives of Natural Science / Math program meet the college mission statement in offering a wide range of educational opportunities (including transfer degrees and certificates, and basic skills instruction).

Strategic Goals (SG)

1. Institutional Effectiveness: Provide the governance, leadership, integrated planning and accountability structures, and processes to effectively support an inclusive learning environment, while ensuring responsible stewardship of public trust and resources.
2. Learning Opportunities: Provide an array of rigorous academic programs delivered via a variety of modalities that promote student equity and learning while meeting the needs of the local and global community.
3. Resource Management: Manage human, physical, technological and financial resources to sustain fiscal stability and to effectively support the learning environment.
4. Student Success: Provide a college environment that reaches-out-to and supports students, minimizes barriers, and increases opportunity and success through access and retention to enable student attainment of educational goals including completion of degrees and certificates, transfer, job placement and advancement, improvement of basic skills, and self-development through lifelong learning.

The below analysis course SLO contributions towards the Strategic Goals of the institution based upon "roll-up" data analysis calculated based on SLO mapping efforts. Therefore, all data listed is based solely on the assessment results of the Course SLO's being mapped to the institutional Strategic Goals.

The below figure indicates programs represented in this IPR show alignment with the LCC Strategic Goals. Course SLO achievement to aligned strategic goals is over 75.0% on all strategic goals, with the lowest achievement correlation being for SG #3 (78.9%) and the highest being SG #1 (81.5%). The average of the percent achievement for the four SGs is 79.9%, with a standard deviation of 1.05%. The data table is shown in Appendix I Table 1.



These Strategic Goal assessment results show program contributions to the Strategic Plan, including Mission, through the mapping of course SLOs to ISLOs which are mapped to Strategic Goals as indicated in the ISLO Map (below).

Indicate, by number, the Strategic Goal(s) each Institutional Student Learning Outcome (ISLO) will support. Specifically describe the assessment method(s) used to measure each outcome and the achievement target that will determine successful completion of the outcome.

Strategic Goal	ISLO	ASSESSMENT MEASURE /TARGET
1, 2	Communication: Ability to listen and read with comprehension and the ability to write and speak effectively.	**Measure:** Assess through the aligned SLOs from the academic year. **Target**: 80% of related SLOs will meet the achievement targets.
1, 2, 4	Critical Thinking: Ability to analyze a situation, identify and research a problem, propose a solution or desired outcome, implement a plan to address the problem, evaluate progress and adjust the plan as appropriate to arrive at the solution or desired outcome.	**Measure:** Assess through the aligned SLOs from the academic year. **Target**: 80% of related SLOs will meet the achievement targets.
2, 4	Life Long Learning: Ability to engage in independent acquisition of knowledge; ability to access information including use of current technology; ability to use the internet and/or library to access and analyze information for relevance and accuracy; ability to navigate systems.	**Measure:** Assess through the aligned SLOs from the academic year. **Target**: 80% of related SLOs will meet the achievement targets.
2, 3, 4	Personal/Interpersonal Responsibility: Ability to develop and apply strategies to set realistic goals for personal, educational, career, and community development; ability to apply standards of personal and professional integrity; ability to cooperate with others in a collaborative environment for accomplishment of goals; ability to interact successfully with other cultures.	**Measure:** Assess through the aligned SLOs from the academic year. **Target**: 80% of related SLOs will meet the achievement targets.

b. Identify and evaluate the Program Student Learning Outcomes including the relationship between course, program and institutional student learning outcomes utilizing information provided by the Office of Institutional Effectiveness. Once again, maps may be utilized.

The below analysis course SLO contributions towards higher level learning outcomes (PSLO, GESLO, ISLO) of the program based upon “roll-up” data analysis calculated based on SLO mapping efforts. Therefore, all data listed is based solely on the assessment results of the Course SLO’s being mapped to the higher-level learning outcomes of the institution.

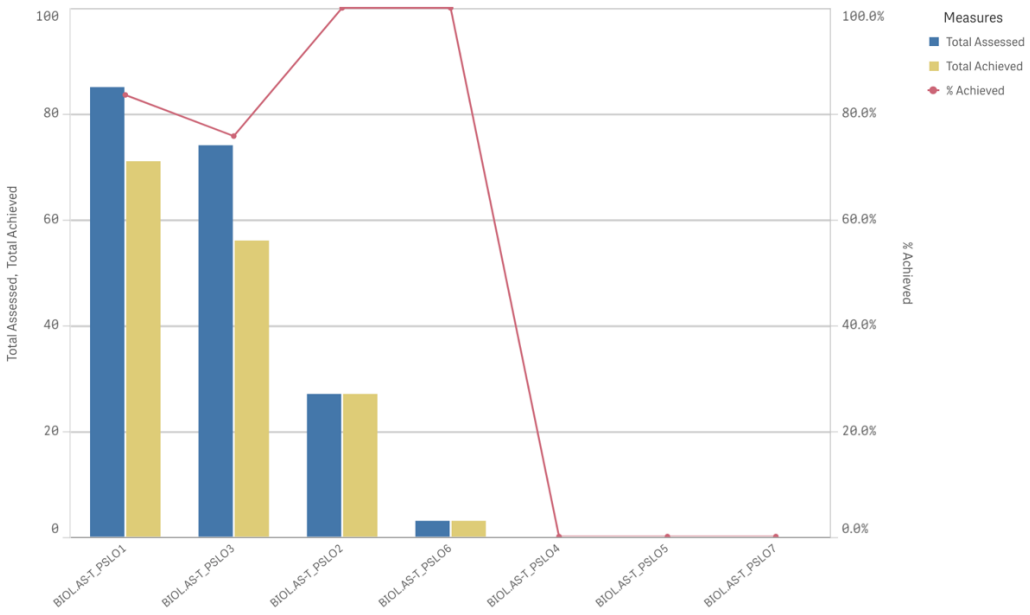
Curriculum review completed as part of this IPR included review/revision of SLO Mapping (as indicated on Curriculum Revision form). Recently revised SLO Maps identify how the course ties to the college mission in terms of providing educational opportunities focused on transfer, economic and workforce development, and/or basic skills instruction. In addition, SLO Maps align course SLOs to GESLO and ISLOs; and PSLO Maps align course SLOs to PSLOs.

Associate in Science Degree in Biology for Transfer (BIOL.AS-T)

1. Apply the scientific method by stating a question; researching the topic; determining appropriate tests; performing tests; collecting, analyzing, and presenting data; and finally proposing new questions about the topic.
2. Apply critical thinking to the examination of the principles of biology, chemistry, and physics using proper laboratory techniques and procedures.
3. Demonstrate a basic understanding of the language, laws, theories and processes that are essential to the understanding of the structure of matter and how the structure determines its physical and chemical properties.
4. Describe the structure and function of molecular and cellular components and explain how they interact in a living cell.
5. Describe how cells interact to develop tissues and organs and how these contribute to a functional organism.
6. Demonstrate an understanding of the mechanisms driving evolution and describe similarities and differences of the major taxonomic groups.
7. Describe how organisms interact with one another, and to their environment and are able to explain interactions at the population and community levels.

The below figure shows an assessment of students achieving the PSLOs for the BIOL.AS-T program (for the data table please refer to Appendix I Table 2). This data shows that for the PSLOs assessed (PSLO #1-3, and 6), the students met all targets (70%) and the percent achieved is above 75.0% for all PSLOs assessed. The highest achievement rate is 100.0% for PSLO #2 and 6, but this is likely due to the low number of assessments (< 30 for each sample size). The lowest achievement rate amongst the PSLO assessed is 75.7% for PSLO #3.

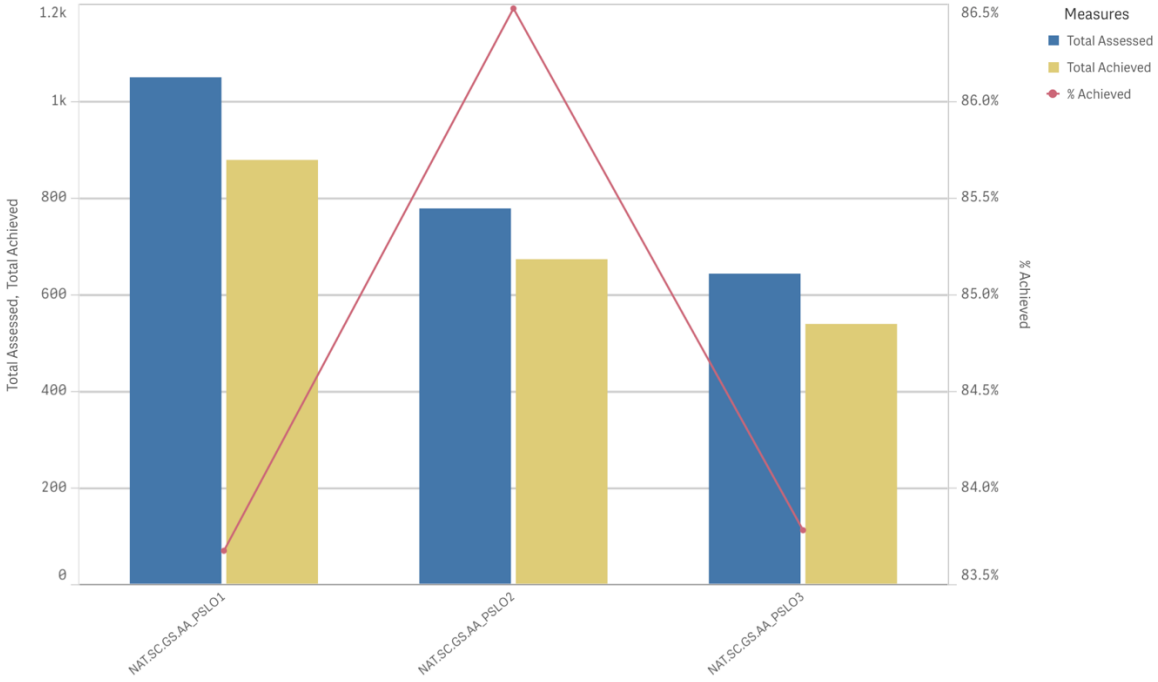
Three PSLOs (PSLO # 4, 5, and 7) were not assessed and efforts should be made to work on assessing course SLOs that contributes to these PSLOs. This concern has been brought up in Academic Senate meeting and is also recognized by the Institutional Effective Planning Committee and will be of discussion as the institution implements new SLO tracking systems.



Associate in Arts Degree General Studies: Emphasis in Natural Science (NAT.SC.GS.AA)

1. Demonstrate an understanding of the basic methodologies of science.
2. Examine the influence that the acquisition of scientific knowledge has on the development of the world's civilizations.
3. Demonstrate a basic understand of the language, laws, theories, and processes that are fundamental to anthropology, astronomy, biology, chemistry meteorology, geology, and/or physics, through the observation and analysis of real life examples.

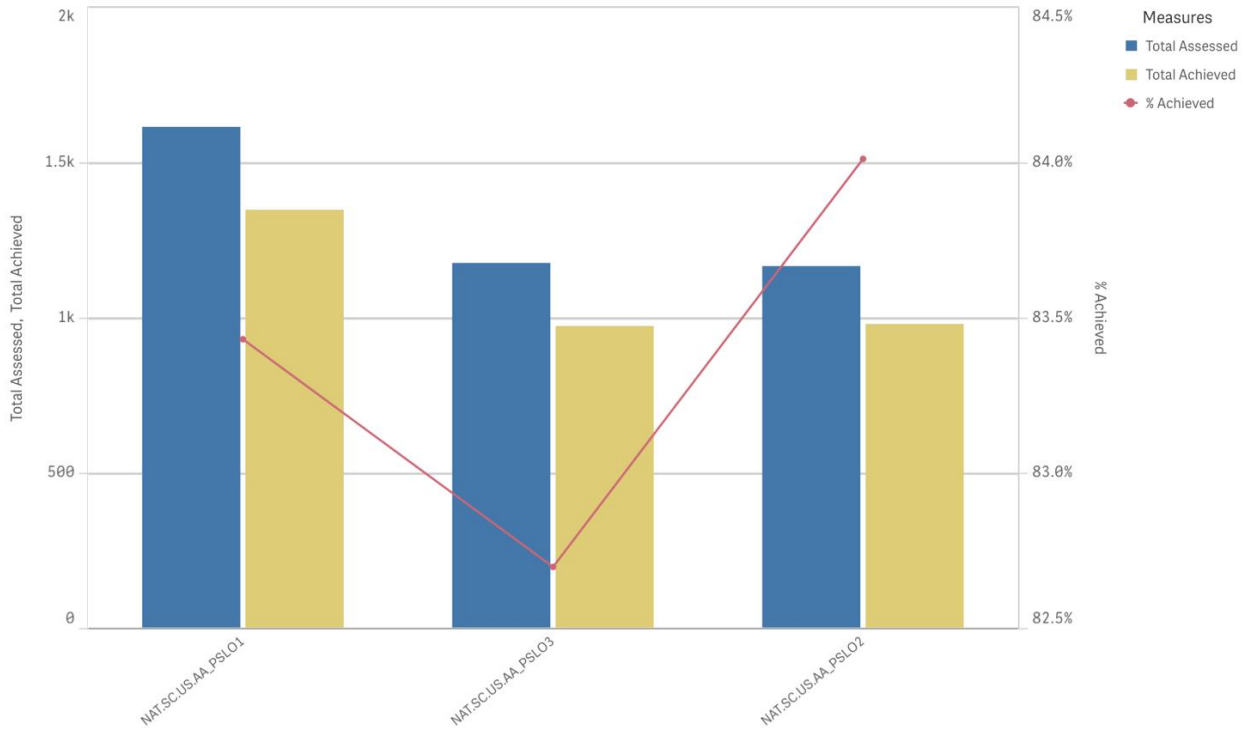
The below figure is an assessment of students achieving the PSLOs for the NAT.SC.GS.AA program (for the data table please refer to Appendix I Table 2). This data shows that the students assessed has met all targets (70%) and the percent achieved is above 80.0% for all PSLOs. The highest achievement rate is 86.5% for PSLO #2 and the lowest achievement rate is 83.7% for PSLO #1. As the total number of students assessed for each PSLO is around 600 for each, this data set can be a realistic representation as to how the students are performing in the program.



Associate in Arts Degree University Studies: Emphasis in Natural Science (NAT.SC.US.AA)

1. Demonstrate an understanding of the basic methodologies of science.
2. Examine the influence that the acquisition of scientific knowledge has on the development of the world's civilizations.
3. Demonstrate a basic understand of the language, laws, theories, and processes that are fundamental to anthropology, astronomy, biology, chemistry meteorology, geology, and/or physics, through the observation and analysis of real life examples.

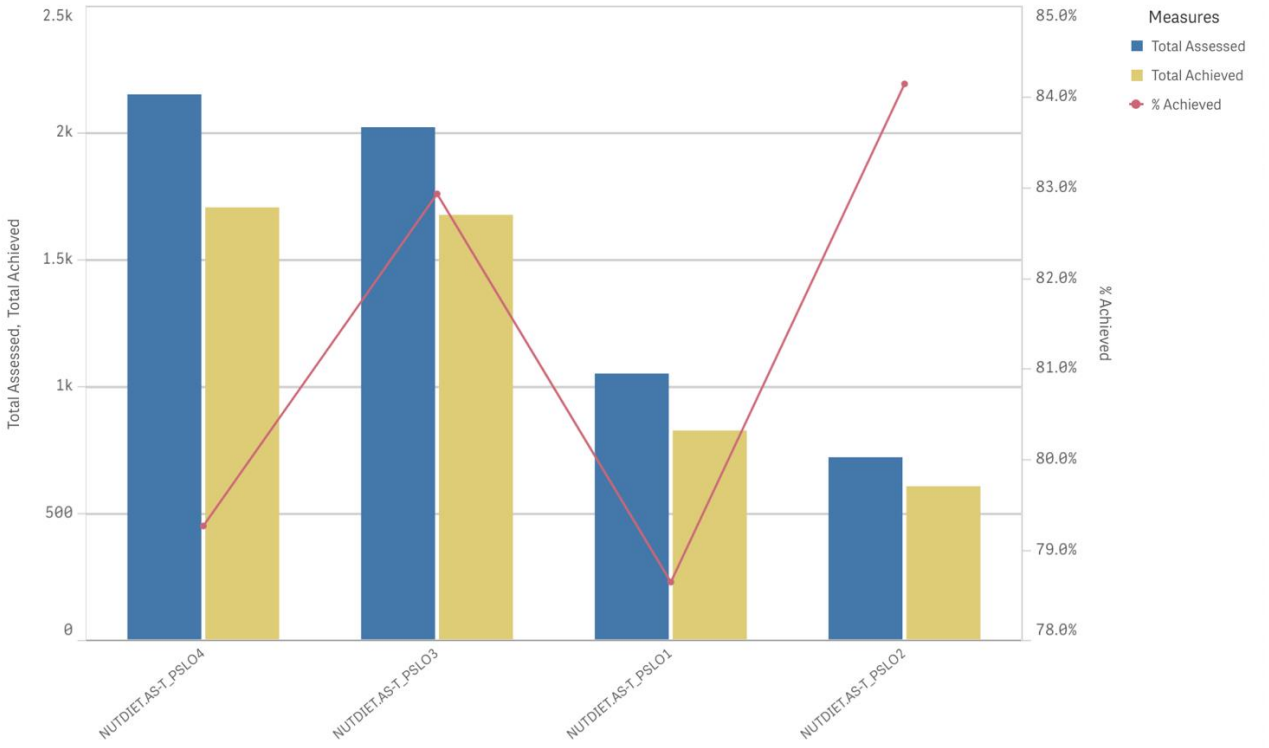
The below figure is an assessment of students achieving the PSLOs for the NAT.SC.US.AA program (for the data table please refer to Appendix I Table 2). This data shows that the students assessed has met all targets (70%) and the percent achieved is above 80.0% for all PSLOs. The highest achievement rate is 84.0% for PSLO #2 and the lowest achievement rate is 82.7% for PSLO #1. As the total number of students assessed for each PSLO is around 1000 for each, this data set can be a realistic representation as to how the students are performing in the program.



Associate in Science in Nutrition and Dietetics for Transfer (NUTDIET.AS-T)

1. Analyze and evaluate nutritional information, lifestyle, and special needs to make recommendations for adequate and balanced diet as well as to make recommendations for dietary improvements
2. Use the scientific method to develop and conduct laboratory experiments utilizing accepted laboratory practices
3. Identify, describe, and investigate the influence of environmental and culture on the development of individual behavior as it relates to nutrition and dietetics
4. Display skills and knowledge necessary to continue study at a California State University in preparation for certification and a career as registered dietician

The below figure is an assessment of students achieving the PSLOs for the NUTDIET.AS-T program (for the data table please refer to Appendix I Table 2). This data shows that the students assessed has met all targets (70%) and the percent achieved is above 75.0% for all PSLOs. The highest achievement rate is 84.1% for PSLO #2 and the lowest achievement rate is 78.6% for PSLO #1. As the total number of students assessed for each PSLO is around 1000 for PSLO #1 and #2, around 2000 for PSLO #3 and #4, this data set can be a realistic representation as to how the students are performing in the program.

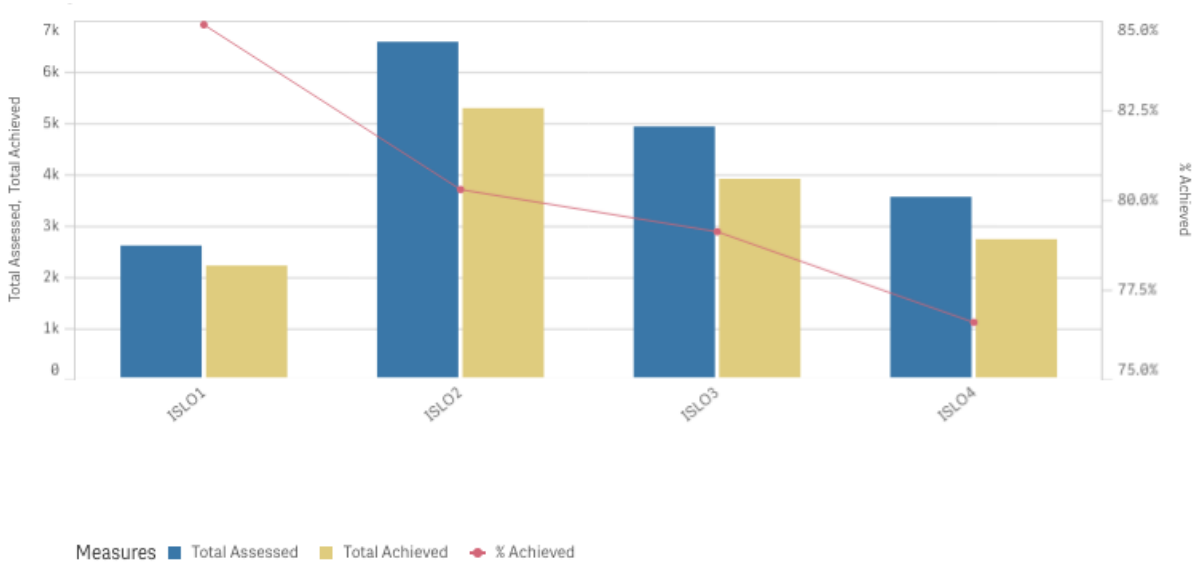


Institutional Student Learning Outcomes (ISLO):

1. Communication - Ability to listen and read with comprehension and the ability to write and speak effectively
2. Critical Thinking - Ability to analyze a situation, identify and research a problem, propose a solution or desired outcome, implement a plan to address the problem, evaluate progress and adjust the plan as appropriate to arrive at the solution or desired outcome
3. Life Long Learning - Ability to engage in independent acquisition of knowledge; ability to access information including use of current technology; ability to use the internet and/or library to access and analyze information for relevance and accuracy; ability to navigate systems
4. Personal/Interpersonal Responsibility - Ability to develop and apply strategies to set realistic goals for personal, educational, career, and community development; ability to apply standards of personal and professional integrity; ability to cooperate with others in a collaborative environment for accomplishment of goals; ability to interact successfully with other cultures

Post Graduate Survey on Institutional Learning Outcomes Data (as shown in Appendix II) collected May, 2021 indicates students self-report strong skills in all ISLOs upon completing their education at LCC with an average of 97.4% achievement rate. Programs within this IPR contribute to students' overall ISLO attainment upon completion of their degree(s) at LCC. More specific correlation to specific programs would be improved if data collection included students identified degree(s) they are attainting and disaggregated survey results by program, mode of delivery, and other student demographics.

The below figure indicates programs represented in this IPR contribute partially to overall Institutional Learning Outcomes with the highest percentage being ISLO #1 (84.8%) and the lowest percentage being ISLO #4 (76.5%). All four of the ISLO was achieved at a rate higher than 75.0% with an average of 80.2%. It is also important to note that the most evaluated ISLO is ISLO #2, and the least evaluated one being ISLO #1, which can contribute to the higher achieved rate. The data table are shown in Appendix I Table 3.

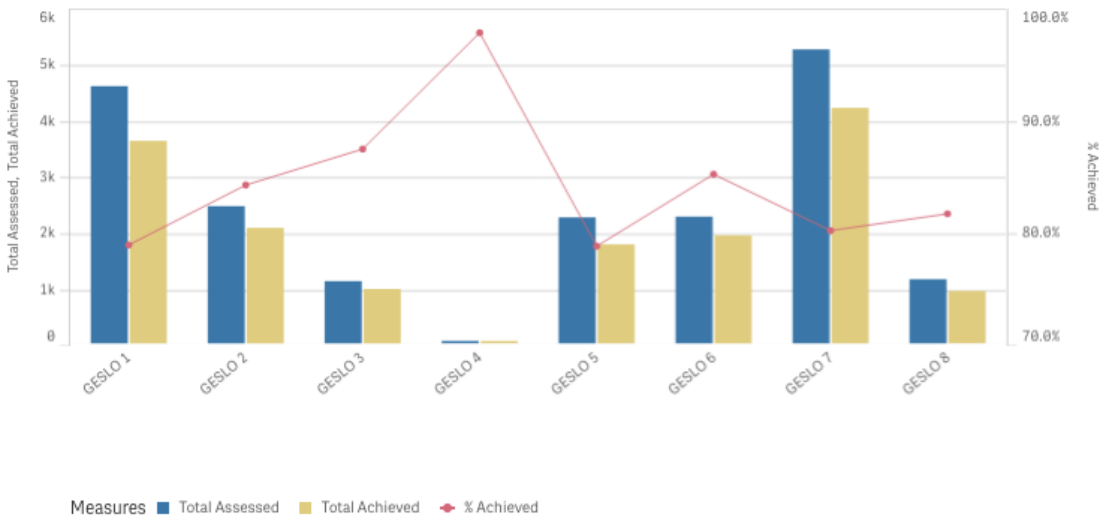


As this IPR represents numerous programs, it is acknowledging all these programs contribute to students' overall ISLO attainment upon LCC graduation.

General Education Area Student Learning Outcomes (GESLO)

1. Understand and apply methods of inquiry for a variety of disciplines including the scientific method for scientific inquiry and appropriate methods for social and behavior science inquiries.
2. Explain and analyze relationships between science and other human activities.
3. Apply knowledge of the ways people act and have acted in response to their societies to express an appreciation for how diverse societies and social subgroups operate to understand social dynamics within historical and contemporary communities.
4. Understand ways in which people throughout the ages and in Western and non-Western cultures have responded to themselves and the world around them in artistic and cultural creation; apply this knowledge to make value judgments on cultural activities and artistic expressions and demonstrate an understanding of the interrelationship between the creative arts, the humanities and self.
5. Engage in verbal communication by participating in discussions, debates, and oral presentations utilizing proper rhetorical perspective, reasoning and advocacy, organization, accuracy, and the discovery, critical evaluation and reporting of information.
6. Compose effective written communications and essays with correct grammar, spelling, punctuation and appropriate language, style and format utilizing academically accepted means of researching, evaluating and documenting sources within written works.
7. Analyze, evaluate and explain theories, concepts and skills within varied disciplines using inductive and deductive processes and quantitative reasoning and application.
8. Demonstrate appreciation of themselves as living organisms through their choices for physical health, activities, stress management, relationships to the social and physical environment, and responsible decision-making.

Based on the figure below, the GESLO data indicates programs represented in this IPR contribute partially to overall General Education SLOs with the average percent achieved is 84.1%. The highest percentage being GESLO #4 (97.7%) and the lowest percentage being GESLO #1 (78.1%). The high percentage of GESLO #4 is contributed by the low assessment number. The total number assessed for GESLO #1 is the second highest amongst the GESLOs (the most assessed being GESLO #7), this can contribute to its low percent achieved. Based on the total number assessed, GESLO #1 and GESLO #7 can be used to draw a closer resemblance of how the students are performing, with a 78.7% and 80.0% achieved accordingly. The data table are shown in Appendix I Table 4.



c. Evaluate any changes in the program since last review. Include summary of Annual Updates completed since last review. Regular program assessment will drive program improvements.

Since the previous program review, the Associate in Science in Geology for Transfer degree deactivated. There are several changes in the mathematics curriculum due to AB 705 where all non-transfer level courses have been eliminated since (except for MATH-60) and supporting labs are created to help student success.

Below is a list of Recommendations made in the previous IPR:

Prioritized Recommendation for Inclusion in Education Master Plan

Planning Agenda Item	Completed	Ongoing	In progress	Incomplete
Hazardous waste disposal (chemical and preserved specimens)	x			
Install a smart board in the chemistry lab room	no-longer needed			
Add equipment repair budget for biological and physical science		x		
Initiate a replacement of equipment budget for the natural science/mathematics program		x		
replace autoclave and incubator for Microbiology class	x			
schedule traditionally low enrolment core courses (BIOL-4, CHEM-1A, CHEM-1B, MATH-1A, MATH-1B, PHYS-2A, PHYS-2B) according to the two-year plan		x		
Continue purchase of NETTUTOR		x		
Add a second small copier for student use in the central area of Math-Science building				x

Prioritized Recommendation for Inclusion in Institutional Effectiveness Master Plan

Planning Agenda Item	Completed	Ongoing	In progress	Incomplete
Assess the relationship between poor attendance and lack of success in mathematics and science courses and identify the primary factor contributing to poor attendance				x
Pilot a project to improve attendance in mathematics and science courses and assess impact on success rates				x

Prioritized Recommendation for Inclusion in Human Resource Master Plan

Planning Agenda Item	Completed	Ongoing	In progress	Incomplete
Realign the schedule of the Instructional Support Specialist in order to provide ongoing support for physical science and mathematics course	x			
Replace Biological Science Instructor retired Spring 2018	x			
Hire an additional Instructional Support Specialist II to adjust additional faculty hires and mathematics lab activities				x
Physical Science Instructor				x

Prioritized Recommendation for Facilities Master Plan

Planning Agenda Item	Completed	Ongoing	In progress	Incomplete
Hazardous waste disposal (chemical and preserved specimens)	x			
Install a smart board in the chemistry lab room	no-longer needed			
Systematically replace the chairs in each classroom over the next several years				x
Replace the moveable partition between the lecture rooms MS-121 and MS-122 with a solid soundproof wall				x
Retrofit 112, 114, 116, 125 into flexible lecture/lab classrooms				x
Remove the partial solid wall partitions between MS-101 and MS-102 and move the Math Lab to MS-101/102				x
Continue to keep and monitor the temperature in all the rooms		x		

Prioritized Recommendation for Facilities Master Plan

Planning Agenda Item	Completed	Ongoing	In progress	Incomplete
Add a smart board to the chemistry lab room	no-longer needed			
Ensure that technology to allow for videos in all instructional classrooms in the Math-Science buildings is functional (specifically MS-122 and MS-112 are not currently operational)				x
Purchase/upgrade faculty software and computers as needed for increase technology/software demands				x

d. Analyze program-related promotional materials/advertising as appropriate

Promotional materials related to the program include pathway flyers provided in the counseling center as well as the information provided on the school website.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Student Services Planning, and/or Institutional Effectiveness Planning tables at the end of the section for any recommendations requiring institutional action. Resources requested via these planning tables must consider the Total Cost of Ownership. Funding amounts entered as "Estimated Cost" part of these requests must be calculated according to the following formula;

Estimated Cost calculation: In order to most appropriately capture the true costs—the *Total Cost of Ownership*—of resource allocation (budget) requests, the "Estimated Cost" that you submit within our planning process must be representative of the total annualized cost of what you are requesting. As you work to develop these costs, please feel free to reach out to the appropriate LCC department to get estimated costs (i.e. HR, Facilities, etc.) for any assistance that you may need.

As an example, if you are requesting a new piece of equipment, the Total Annualized Cost (”C”) would include all of the following cost elements:

- The purchase price (”P”) of the equipment, *plus*
- The installation cost (”I”) of the equipment, *plus*

.

Annualized energy costs (”E”) (electricity, natural gas, etc.) to operate the equipment (Facilities department can assist with this calculation) , *plus*

- Any initial and ongoing (annual) supplies costs (”S”) for the equipment (eg: paper and toner for copiers or printers) , *plus*
- Any initial and ongoing (annual) maintenance costs (”M”) for the equipment (eg: annual service, oil change, license fees, etc.)
- The resulting formula would then be: [C = P + I + E + S + M]

Another example would be for staffing (Human Resources) requests, for which the total annualized cost (“C”) would include both of the following cost elements:

- Annual pay (“P”) for the position
- Annual benefits (“B”) for the position
- The resulting formula would then be: [C = P + B]

1. Implement an CSLO tracking system that allows all the PSLOs to be assessed.

II. Student Outcomes

A. Trends and Patterns in Student Outcomes

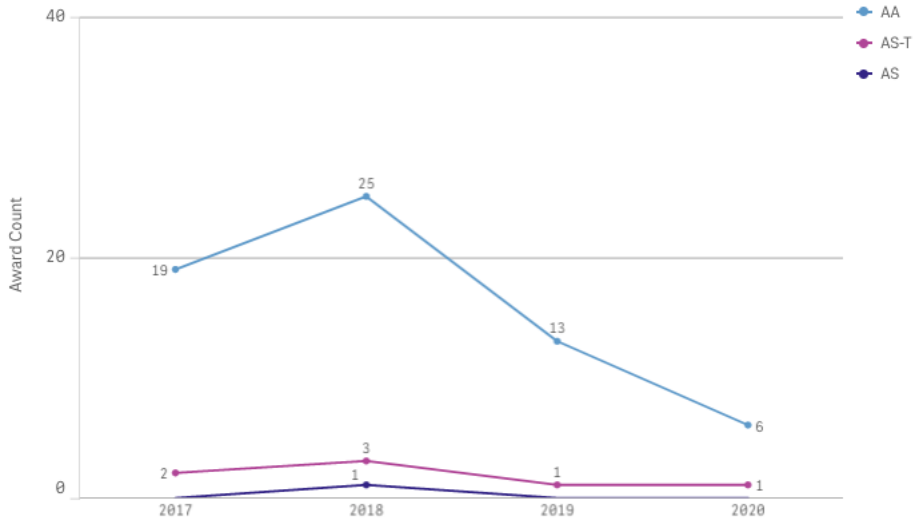
Identify, use language of, include data for adopted Institutional set standards. Link student achievement standards to LCC mission. Filter data for equity metrics such as: Gender, Ethnicity, CalWorks Eligibility, Disability/DSPS Status, EOPS Eligibility, CARE Eligibility, Veteran Type, Residency Status, Parents Education Level

Description / Evaluation:

1. Provide in **tabular form** followed by an analysis
   a. Number of degrees and certificates awarded during the last four years.

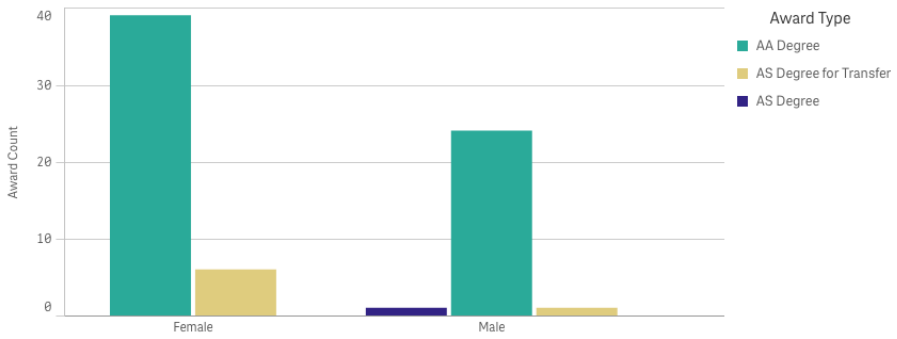
Total Number of Degrees and Certificates Awarded by Academic Year (see chart below)

The below table tabulates the total number of degrees and certificates awarded, categorized based on AS, AA, and AS (transfer degrees). At LCC we also offer Dual/Concurrent Enrollment options for students. Over the last four years, a total of 71 regular degrees were awarded in the NS/M program. Out of the 71 degrees, 7 were AS Degrees for transfer (9.85%). In general, the number of AA degree awarded declines after 2018. Please see Appendix I Table 5 for the associated data in tabular form.



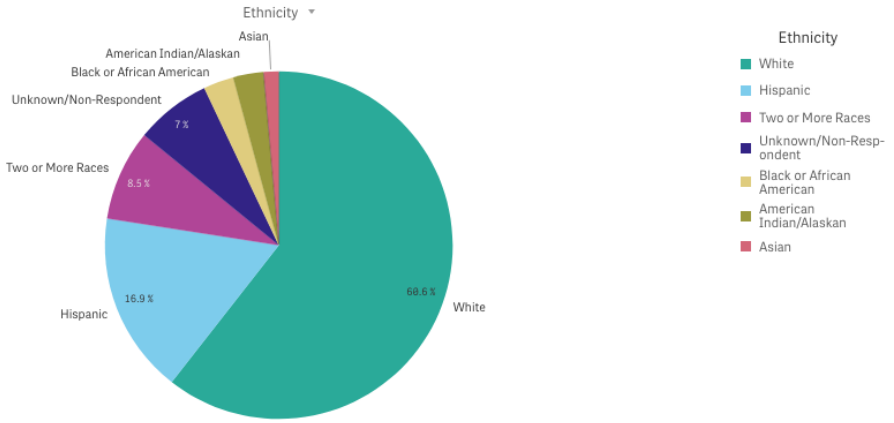
Filter by Gender (see chart below)

Analyzing the total number of degrees awarded over four years based on gender (as shown below), the degrees awarded to female is higher than males by 26.8%. The degree awarded for both genders decline after 2018. Please see Appendix I Table 6 for the associated data in tabular form.



Filter by Ethnicity (See image below)

Looking the total number of degrees awarded over four years filter by the 8 ethnicities (as shown below), 60.6% of the degrees award in the program is to students who identified themselves as White ad 16.9% for Hispanic. Please see Appendix I Table 7-1 for the associated data in tabular form. The large disproportion in degree awarded filtered by different ethnic group is likely due to the campus student population. As shown in Appendix I Table 7-2, 36.5% of the headcount for total student population is White and 34% Hispanic, and this data includes the student headcount at all locations.



Filter by CalWorks Eligibility, Disabled / DSPS Status, EOPS Eligibility, and CARE Eligibility

The data for total number of awards analyzed based on CalWorks Eligibility, Disabled / DSPS status, EOPS Eligibility, and CARE Eligibility is not included as the total number of individual cases over the past 4 years is less than 10.

Filter by Residency Status

Based on the degree awarded sorted by residency status, most of the awards given by the program is awarded to California Residents (with the AA degree being the majority). Out of the 71 total degrees awarded in the past 4 years, only 6 were to students of foreign country resident and 6 to out-of-state students. There were 6 students with AB540 residency status awarded with the degree over the 4 years. Please see Appendix I Table 8 for the associated data in tabular form.

Filter by Veteran / Military Dependent Status

Based on the degree awarded sorted by veteran / Military Dependent Status, the most degree awarded were AA Degrees, and the majority of the degrees were awarded to non-veterans. In the 4 years, only a total of 5 degrees (out of 71 total) were awarded to students of parent/Guard Veteran or Military dependent status. Please see Appendix I Table 9 for the associated data in tabular form.

b. Transfer numbers for the last four years

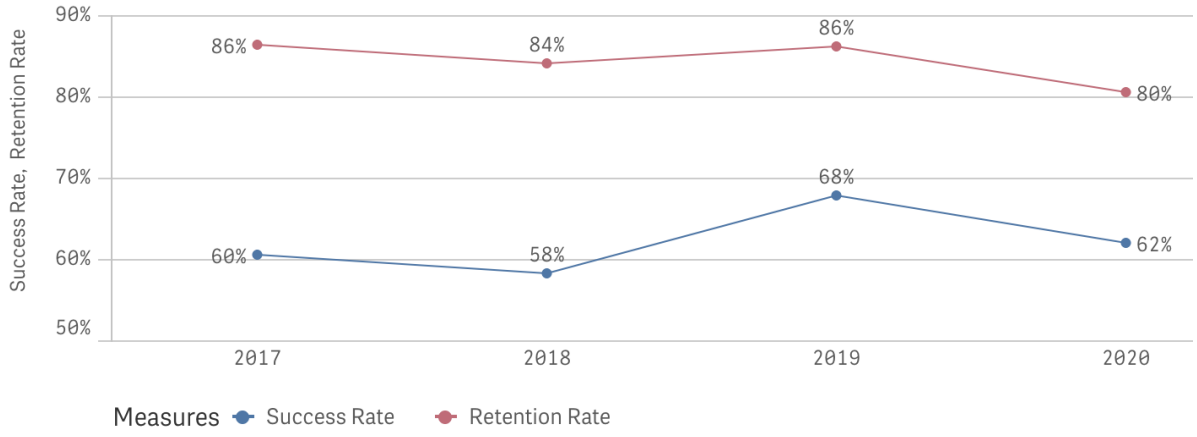
Over the 4 years, the program had a total of 24 students who transferred to four-year institutions since the Academic Year of 2015-16. Of those program graduates, 8 students have subsequently earned the degrees as listed in the below table:

Graduation Year:	Type of Degree:	Major:	College/University:	State:
2018-19	BACHELOR OF SCIENCE	NURSING	SIMPSON UNIVERSITY	CA
2018-19	BACHELOR OF SCIENCE/MASTER OF SCIENCE	BIOTECHNOLOGY	UNIVERSITY OF NEVADA-RENO	NV
2018-19	BACHELOR OF SCIENCE	FOREST MANAGEMENT AND ECOLOGY	UNIVERSITY OF NEVADA-RENO	NV
2018-19	BACHELOR OF SCIENCE	MOLECULAR MICROBIOLOGY AND IMMUNOLOGY	UNIVERSITY OF NEVADA-RENO	NV
2018-19	BACHELOR OF SCIENCE	MATHEMATICS	UNIVERSITY OF NEVADA-RENO	NV
2019-20	BACHELOR OF SCIENCE	ENVIRONMENTAL SCIENCE	WESTERN WASHINGTON UNIVERSITY	WA
2020-21	ASSOCIATE OF APPLIED SCIENCE	INFORMATION TECHNOLOGY	PURDUE UNIVERSITY GLOBAL	IN
2020-21	BACHELOR OF SCIENCE	SOCIOLOGY	UNIVERSITY OF OREGON	OR

c. Completion, retention and success data for the last four years

Success and Retention Rates by Academic Year (See chart below)

The Retention Rates of the program has been consistently around 85% over the four years, there is a drop in the retention rate to 80%, this is likely due to the pandemic and the sudden switch to online modality in March 2020. For the Success Rates, the peak of the success rate was in 2019, and then there is a drop to 62%. The 62% success rate in 2020 is higher than the year of 2017 and 2018, with the pandemic effecting instruction modality. Please see Appendix I Table 10 for the associated data in tabular form. It is important to note that modally of the classes itself is not necessarily the cause of the drop in these numbers, several other factors include lifestyle changes, changes in financial situations as well as general health and mental health impacts may collectively played a role in leading to decline in student success.

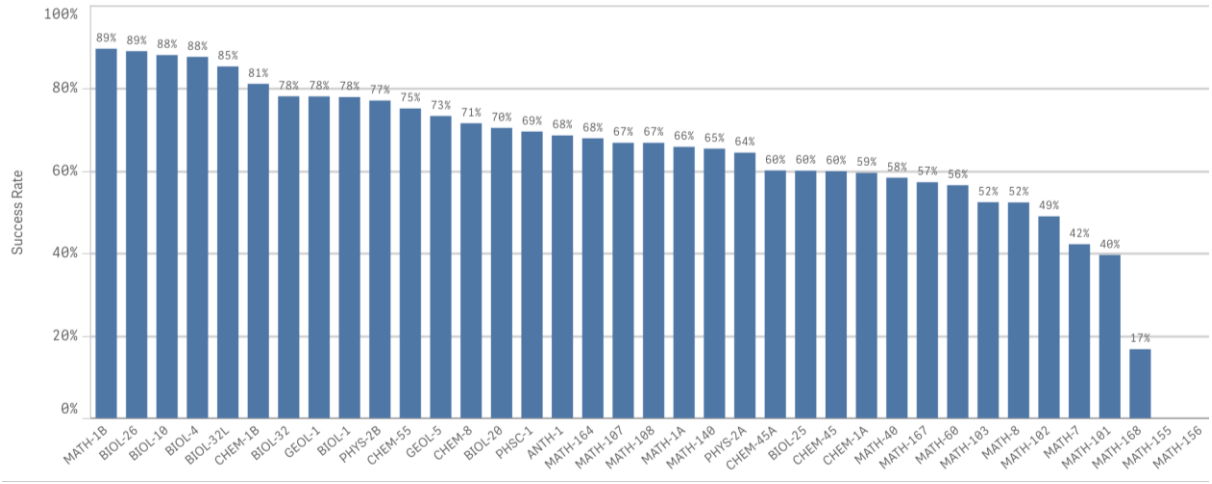


Success Rates by Course (See chart below)

The highest success rate for the Math courses is MATH-1B (Calculus II) and the lowest being MATH-168, the supporting lab course for MATH-8 (Advanced Algebra). Except for MATH-1B with a 89% success rate, all other transfer level math classes (MATH-1A, MATH-40, MATH-7, and MATH-8) have an average success rate of 54.5%.

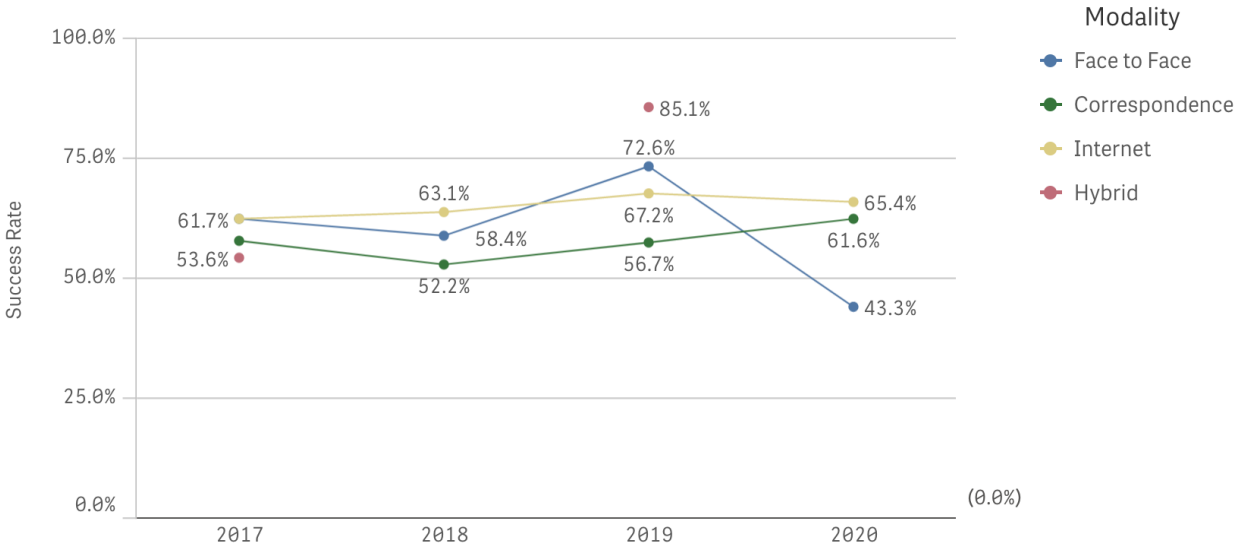
As far as physical science courses (Geology, Chemistry, Physics, and Physical Sciences), the highest average success rate is in the geology courses, with a 78% for GEOL-1 (Physical Geology) as the highest and GEOL-5 (Historical Geology & Paleontology) with a 73% as the lowest of the geology courses. On average, the lowest success rate is in chemistry courses, with the 75% in CHEM-55 being the highest and a 59% in CHEM-1A (General Chemistry I) being the lowest. For the life science courses (Biology and Anthropology). The biology course with the highest success rate (89%) is in BIOL-26 (Human Anatomy and Physiology II), and the lowest success rate in BIOL-25 (Human Anatomy and Physiology I) with a 60%.

Please see Appendix I Table 11 for the associated data in tabular form.



Success Rates by Modality (See chart below)

The average success rate over the four years is 64.35% for Face to Face, 45.15% for Correspondence, 64.38% for Internet, and 34.68% for Hybrid modality. The highest average success rate is for correspondence and the lowest Hybrid. However, the Hybrid modality was only offered for two out of the four years that is being evaluated, therefore there cannot be a conclusion drawn. The success rates for face to face and Internet modality are the highest among them all. There is a drop in the Face-to-Face success rate in 2020, which is likely due to the pandemic and the switch to fully online modality in March 2020. Please see Appendix I Table 12 for the associated data in tabular form. It may be important to note that due to small sampling sizes the data for hybrid modality may be skewed. Currently efforts are underway to provide hybrid modalities which allow students greater flexibility. It is imperative to understand that with time and experience in utilizing these modalities, the success rates should improve, low success rates at this time are multifactorial (including instructor lack of experience and lack of access to technologies and training). Furthermore, it should be noted that success rates in the years 2020-2022 and possibly beyond will be impacted by the many factors that covid-19 had on student and instructor lives. Not only did covid yield difficulties in transitioning to online and hybrid modalities, but the financial, health and mental health impacts (among others) may play major contributing roles to fluctuating success rates across the internet and hybrid modalities (since these were the modalities most common during covid).



Success Rates by Student Gender

Looking at the average success rate over the four years, the female has a higher success rate than males, and this is consistent when looking at the success rate for each of the four years. Please see Appendix I Table 13 for the associated data in tabular form.

Success Rates by Ethnicity (8)

Based on the data in Appendix I Table 14, there isn't an observable trend that correlates the success rates and the ethnicity of the student. The success rates for "American Indian/Alaskan" (during 2017 and 2018); and "Two or More Races" (during 2019 and 2020) are lower than others but not to a statistically significant degree (determined by Graph pad's Grubbs test/ EDS statistical analysis).

Success Rates by CalWorks Eligibility

Based on the data in Appendix I Table 15, the success rates for the CalWorks Eligibility over the 4 years was relatively consistent with an increasing trend except for the year of 2018, where there is a significant decrease in success rate. There is no data that allows a correlation for the cause of this drop.

Success Rates by Disability Flagged

Based on the data in Appendix I Table 16, the success rate by disability flagged is as shown below, with an average of 57.5% with a standard deviation of 9.68%. The lowest success rate being the year of 2018 and the highest 2019.

Success Rates by EOPS Eligibility (See chart below)

Based on the data in Appendix I Table 17, the success rates for students with EOPS eligibility is on average 64.18% with a standard deviation of 7.66%, with the highest being 73.7% during the year of 2019 and the lowest 56.4% during the year of 2017.

Success Rates by CARE Eligibility and by Foster Youth Special Program

The data for total number of awards analyzed based on CalWorks Eligibility and on Foster Youth Special Program ty is not included as the total number of individual cases over the past 4 years is less than 10.

Success Rates by Veteran / Military Dependent Status

The success rates of students with different veteran / military dependent status does not have any observable correlation. Please see Appendix I Table 18 for the associated data.

Success Rates by Residency Status

The success rates for foreign country residents are consistently higher than the other categories (except for the Veteran Access Choice Acnt Act in 2018). All other categories have similar success rates over the 4 years. Please see Appendix I Table 19 for the associated data.

Success Rates by Student Type

The success rates for students of dual/concurrent enrollment are consistently higher than the other two, and Incarcerated students, having the lowest success rate. Please see Appendix I Table 20 for the associated data.

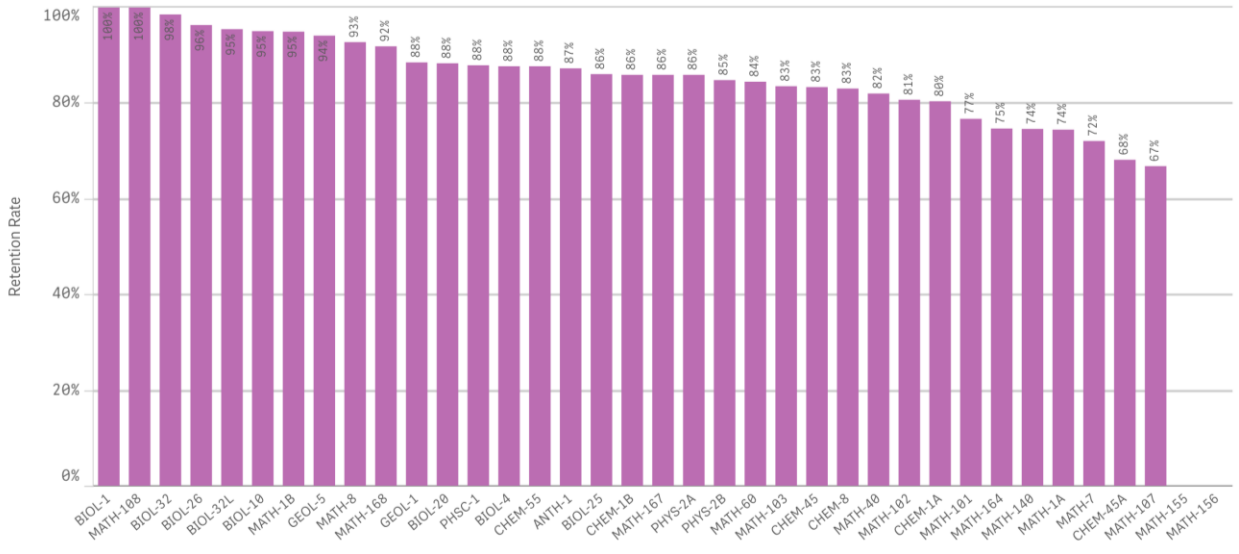
Success Rates by Location (See chart below)

In general, the success rates do not different much based on the location. The Incarcerated correspondence and the Cdcr/Fci F2f Education have a lower success rate than the other locations. Please see Appendix I Table 21 for the associated data.

Retention Rates by Course (See chart below)

The highest retention rate for the math courses is MATH-108, the supporting lab for MATH-8 (Advanced Algebra) and the lowest being MATH-107, the supporting lab course for MATH-7 (Trigonometry). Except for MATH-1B with a retention rate of 95%, the retention rate for transfer-level math courses (MATH-1A, MATH-40, MATH-7, and MATH-8) is 80.38%.

As far as physical science courses (Geology, Chemistry, Physics, and Physical Sciences), the highest average retention rate is in the geology courses, with a 94% for GEOL-5 (Historical Geology & Paleontology) GEOL as the highest and -1 (Physical Geology) with a 88% as the lowest of the geology courses. On average, the lowest retention rate is in chemistry courses, with the 88% in CHEM-55 being the highest and 68% for CHEM-45A (Discussion Session for Introduction to General Chemistry) being the lowest. For the life science courses (Biology and Anthropology). The biology course with the highest retention rate (100%) is in BIOL-1 (Principles of Molecular and Cellular Biology), and the lowest in BIOL-25 (Human Anatomy and Physiology I) with a 60%. Please see Appendix I Table 22 for the associated data in tabular form.



Retention Rates by Modality (See chart below)

The retention rates for all modality are consistent over the four years, with the Face to Face modality experiencing a significant drop in 2020, this again is likely due to the pandemic that hits March 2020. Over the 4 years, the retention rate declines for Internet modality and is the highest for 2019 Hybrid modality. It is important to note that declines in the face-to-face modality during 2020 may have been severely impacted by Covid. Since covid had major financial, health and mental health impacts on students these external factors may be underlying causes of retention issues in face-to-face classes.

Modality	Academic Year: 2017	2018	2019	2020
Face to Face	87.5%	85.0%	86.2%	63.7%
Correspondence	82.9%	81.1%	83.9%	83.7%
Internet	88.0%	84.9%	84.4%	81.8%
Hybrid	78.6%	-	97.4%	-

Retention Rates by Location
In general, the retention rates for hybrid location increases over four years and the CDCR/FCi F2f Education decreases over the four years. The other locations have retention rates that fluctuates around 80-85% with no observable trend. Please see Appendix I Table 23 for the associated data.

Retention Rates by Student Gender
The retention rates for females in the program is consistently higher than of males over the 4 years. But the difference between the rates is not significant. Please see Appendix I Table 24 for the associated data.

Retention Rates by Ethnicity (8)
There is no observable correlation between the ethnicities and the retention rate. Please see Appendix I Table 25 for the associated data.

Retention Rates by CalWorks Eligibility
The retention rate filtered by CalWorks Eligibility has an average of 86.0%. Please see Appendix I Table 26 for the associated data.

Retention Rates by Disability Status
The retention rate for students of disability status is 77.28% averaging over 4 years. Please see Appendix I Table 27 for the associated data.

Retention Rates by EOPS Eligibility
The average retention rate for students of EOPS Eligibility is 86.73% over the 4 years. Please see Appendix I Table 28 for associated data.

Retention Rates by CARE Eligibility and Foster Youth Special Program
The data for total number of awards analyzed based on CalWorks Eligibility and on Foster Youth Special Program ty is not included as the total number of individual cases over the past 4 years is less than 10.

Retention Rates by Veteran / Military Dependent Status
There is no observable correlation between the retention rate and the Veteran / Military Dependent Status over the 4 years. The retention rate for Veteran, Active Military, Member of the National Guard, and Parent/Guard Reserves all has a retention rate of 100.0% in at least one of the 4 years when the data is collected, however, this is likely due to the small population size that was accessed. Please see Appendix I Table 29 for the associated data in tabular form.

2. Analyze program effectiveness based on available quantitative data and qualitative experiences.
During the previous two program reviews faculty have relayed a concern that student attendance may be inconsistent, and this in turn may be correlated with poor performance among the student population taking the mathematics and science courses. A study to assess the relationship between poor attendance and lack of success should be done by evaluating the attendance data and establishing how strongly it is correlated with student performance (either passing of the class or overall grades in the course). Other factors that may contribute to poor student performance should be identified and documented in the future so that the math and science divisions may

adjust approaches in instruction to aid students in the performance within these courses.

The 2020 pandemic led to numerous changes for students and faculty alike, many of these changes may have had impacts on student performance. Among the changes was a switch in modality. Many professors had to make a switch from face-to-face modalities to fully online without having sufficient experience or training to do so in a way that would be optimal for helping students achieve success in their respective courses. Additionally, the personal impacts of covid cannot be discounted. The covid pandemic led to mass isolation and general impacts on mental health on all individuals worldwide and led to major shortages not only of food and items for day to day living but on access to technology. The impacts may have also been coupled with students themselves becoming sick with the virus or enduring the loss of loved ones. Collectively these impacts and numerous others are the likely causes of a decline in success rates across all disciplines during Spring 2020. Furthermore, it may be prudent to expect that these impacts will reverberate for many years to come as the world and our communities adjust to the new implications that the Covid-19 pandemic has introduced.

Despite the negative impacts of the covid-19 pandemic, there are many positive outcomes. A growth in technology and more experience with leveraging the breadth of tools at our disposal may provide better opportunities for instructors to meet students where they are (both location wise and preparedness wise). Utilizing tools such as canvas studio (or other online platforms for recorded lectures) will open up better methods for creating engaging content where students can move at their own pace through course material and receive a constant flow of feedback. Tools such as net tutor, virtual lab assignments, Math lab, and various tutorial videos can assist students in getting support when and where they need it. Evaluations, too, are growing more complex as new evaluation tools (such as the new canvas quiz tools and proctoring apps are made available to instructors. This may allow us to better serve our students and even broaden our reach to students outside our community in the years to come.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Student Services Planning, and/or Institutional Effectiveness Planning tables at the end of the section for any recommendations requiring institutional action.

1. Assess the relationship between poor attendance and lack of success in Mathematics and science courses and identify the variety of factors contributing to poor attendance This should be followed up with evaluating what measures can be taken by faculty and the institution at large to support the students in helping them achieve success in the classroom.
2. Pilot a project to improve attendance in Mathematics and science courses and assess impact on success rates.
3. Pilot projects in Gatekeeper courses, incorporating active learning strategies, learning communities, student-peer mentoring and writing across the curriculum to increase student success. This should include training and assistance in building and integrating the various online and canvas tools at the instructors' disposal
4. Expand the tutoring program to increase the number of embedded tutors in the math courses as well as higher and consistent coverage in tutoring hours.
5. Expand offerings of online or distance tutoring opportunities to meet students' varied needs.
6. Establish consistency in the same course taught by different instructors

B. Student Learning Outcome Assessment

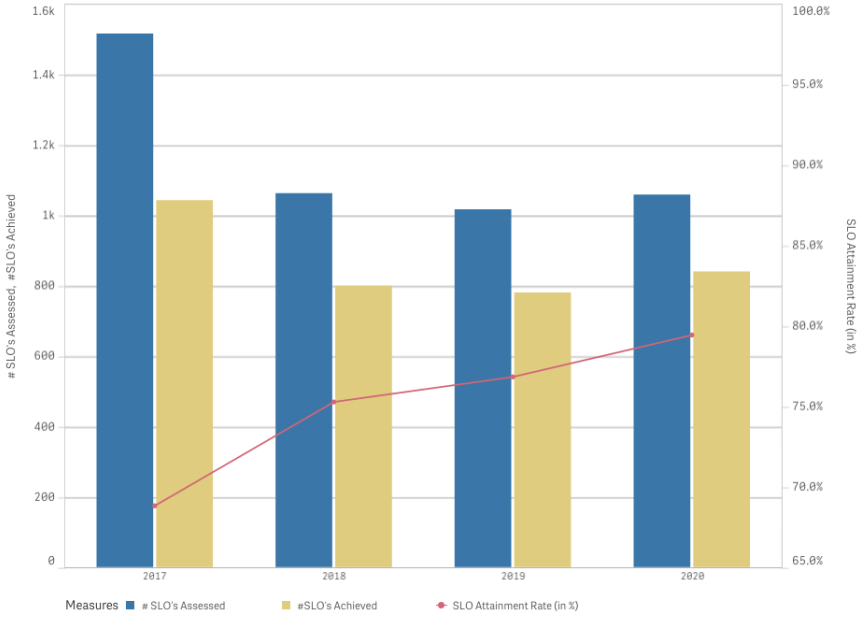
SLO assessment is important to maintain and improve an effective learning experience for LCC students. Evaluating SLO results regularly is helpful for evaluating student learning and identifying emerging program needs. There is a link between SLO assessment results, SLO improvement plans and review of curriculum and/or budget requests. Regular program assessment will drive program improvement. By contract, faculty are required to measure at least one SLO for every class taught each semester; these records are maintained in the online Data Management and Visualization tool (CLIC) and are available for review by faculty at any time through its self-updating, interactive dashboards and reports.

Description / Evaluation:

1. Attach an SLO assessment summary as provided by the Office of Institutional Effectiveness

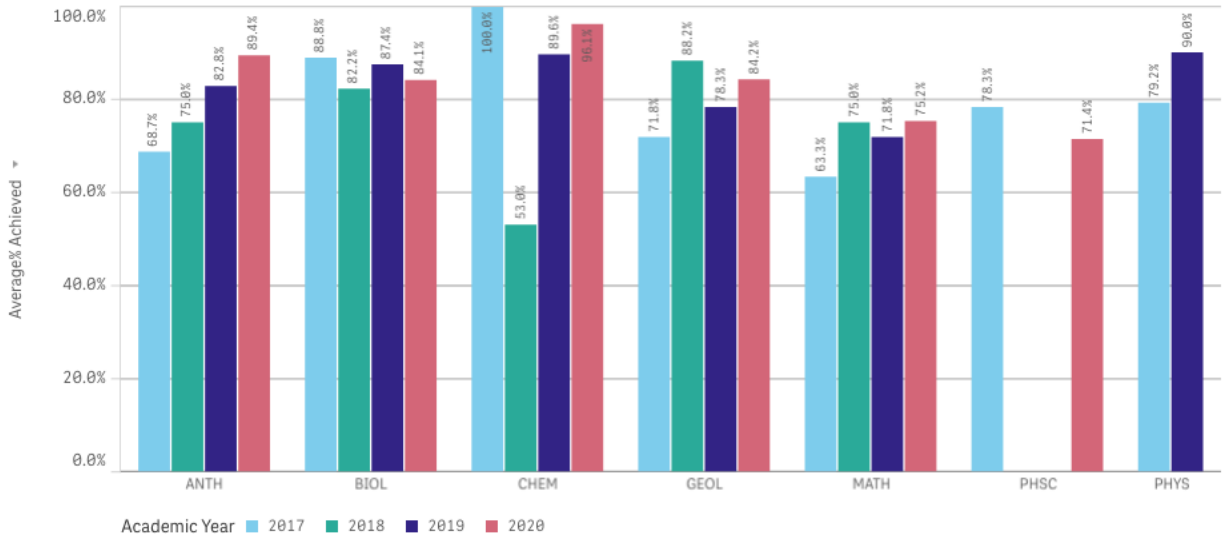
Overall Trend (See chart below)

Based on the data shown below, the overall SLO attainment rate is increasing over the past 4 years. The number of SLO assessed is fluctuating as reflected in the student enrollment. The faculties in the area have measured at least one SLO for every course taught each semester consistently. For the tabulated table, please refer to Appendix I Table 30.



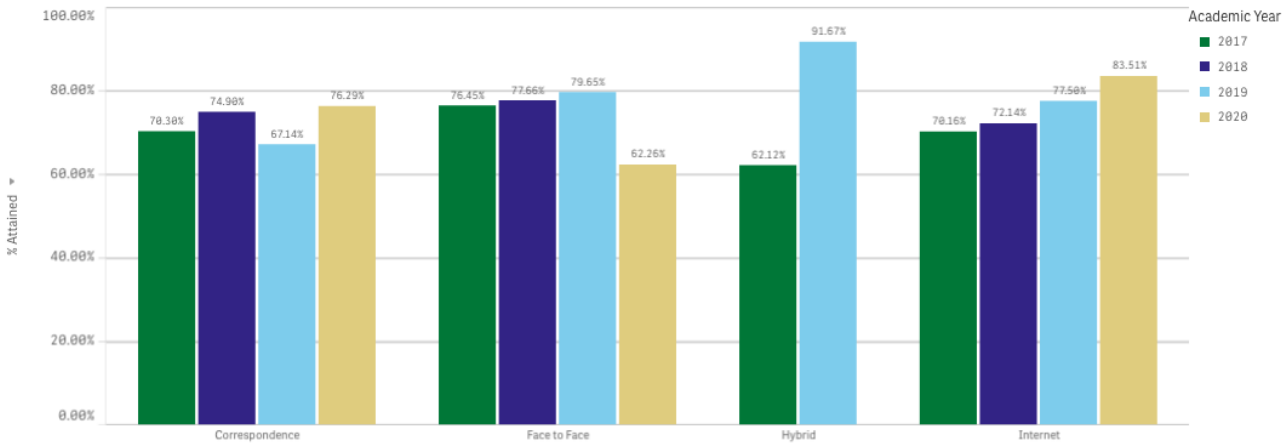
By Course (See chart below)

The average % SLO achieved is increasing over the year with exceptions of the chemistry and geology course for the year of 2017-28. All the courses have an average of % SLO achieved above 70%. In the year of 2018 the chemistry %SLO achieved was significantly lower than the other years (53.0%), this can be due to the late start as the instructor was not hired till the beginning of the fall semester and the course had to start 2 weeks late. The % SLO achieved for chemistry after 2018 has raised back to around 90.0%. Please refer to Appendix I Table 31 for associated data table.



By Modality (See chart below)

The % SLO achieved are on average highest when delivered in Hybrid modality (76.90%) and lowest in correspondence (72.16%). The %SLOs achieved are relatively consistent over the years for correspondence and online modality. There is a significant drop in the achievement rate in Face-to-Face modality in the year of 2020, this can be contributed by the pandemic starting March 2020 where students who were taking face to face classes were asked to switch to online delivery modality during the last 2 months of instruction. For the hybrid modality, it was offered in the year of 2017 and 2019. In the academic year of 2017, there is only one class offered hybrid (MATH-60), which leads to the lower % SLO achieved as the data collected is for one single course. In the year of 2019, the courses delivered hybrid include BIOL-4 and 32L during fall/spring terms, as well as the 25/26 series during summer. Please refer to Appendix I Table 32 for associated data table.



2. Provide an analysis of findings of the assessments completed and recommendations being made in individual assessments.

   Based on Appendix I Table 2, the achievement rate for SLO is above 70%. To improve the SLO achievement rates for each program, it is suggested that the college implement a tracking system for the faculties to evaluate their previous assessment and make changes upon the previous attempt.

   Consider the impact or influence of the assessment results at the program level.

   At the program level, the course SLOs are aligned and mapped to the PSLOs. Based on the results of the below figure, it is shown that there are some PSLOs that are more frequently accessed than the others, and some of the PSLO are not being accessed at all. It is recommended that the school encourages the instructors to assess the course SLOs that correspond to different PSLOs to have a better SLO analysis at the program level.

   Consider how SLO results may be leveraged to support equipment, facility, staffing, or other budget and planning needs and include the justification in your analysis.

   As of Spring 2022, the college is looking to offer special assignments to faculty (Thomas Robb was selected) to coordinate the SLO assessment process and its implementation to Canvas. And the college is also looking into different software implementations to help the progress. If the current and ongoing SLO implementation strategies provided by the college would last and work as expected, there is no additional support needed beyond those at this point.

Planning Agenda:

List recommendations and actions necessitated by the above evaluation of SLO results. Complete Academic Planning, Student Services Planning, and/or Institutional Effectiveness Planning tables at the end of the section for any recommendations requiring institutional action. For any items needing Human Resources Planning, Institutional Technology Planning, or Facilities Planning action, please make sure to include the information within the appropriate section and table later in the program review document.

Track the effectiveness of implemented recommendations in subsequent student learning outcome assessments to better determine their effectiveness.

C. Student Evaluation Summary

The student survey portion of the evaluation procedure is designed to solicit comments concerning the program only, and is not an evaluation of instructors (See Attachment C, Student Survey).
An anonymous questionnaire is considered to be the most effective format. This will encourage the students to be frank in their responses. The student evaluation will be scheduled and administered by the Office of Instruction during October/November and February/March of each instructional review process. The Office of Instruction staff will consult with the members of the self-evaluation group to determine the student sampling and consider any program-specific revisions to the student survey. The sampling will consist of a minimum of three core courses and other courses as selected by the self-evaluation team. (Example: The basic skills program might wish to survey courses with high enrollment of former basic skills students.)

Description / Evaluation:

Attach Student Evaluation Summary provided by Office of Academic Services and provide an analysis of the results of the student evaluation

Fall 2020

Based on the Appendix III, the students who participated in this evaluation were 8 students from the BIOL 32 or 32L course. Out of these 8 students, 7 are in the Mathematics/Natural Science program and 1 in the History/Sociology, Social Science/Psychology program. All 8 students are looking to transfer to a 4-year institution and are planning to do so by earning AA/AS degrees from LCC as well as completing the certificate of achievement/accomplishment. The specific degree program and certificate that the students are aiming for varies as BIOL 32 and 32L are the general biology course and fulfills the life science with a lab requirement for other a lot of the programs.

Spring 2021

Based on the Appendix III, there were a total of 3 participants (specific course not indicated). All three participants are in the Mathematics/Natural Science program and looking to transfer to a 4-year degree program.

Fall 2021

Based on the Appendix III, there were 71 students who participated in this evaluation, mostly students taking a biology course and some from math and chemistry. 67.61% of the students are in the Mathematics/Natural Science program and the rest in other programs (History/Sociology/Social Science/Psychology, Physical Education, and Vocational Nursing/Allied Health). The student's educational goal is mostly (67.61%) transferring to a 4-year institution, and 86.76% of the students are aiming for an AA/AS degree. 80.00% of the students report that the current schedule meets their needs and others report their need in schedule such as different time frames, weekends, and classes that are only meeting once a week. 3 students requested the course (not specified) to be offered more often (in both fall and spring semesters). In the additional comments related to facilities, a lot of students request the need of new lab chairs for their classroom, and that certain rooms (unspecified) do not have sufficient lighting. Another category of student comments is associated with outdated equipment (microscopes and slides) used for instruction. Students are generally satisfied with the instruction based on the comments.

Most students enrolling in natural science and mathematics courses indicate the intention to transfer to a four-year institution and earn an associate degree. Many of these students do not indicate the intention of obtaining general education certification.

Students consistently expressed satisfaction with:

1. scheduling of Mathematics and natural science classes
2. availability of facilities and equipment
3. temperature control some of the rooms (not specified)

Students expressed concerns with:

1. chairs in the lab rooms are either uncomfortable or squeaky
2. catalog description not adequately preparing students for the cost of the program beyond the cost of textbooks
3. some classrooms in the building (not specified in the survey) was identified as being too cold or too hot.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Student Services Planning, and/or Institutional Effectiveness Planning tables at the end of the section for any recommendations requiring institutional action.

1. Promote general education certification in preparation for transfer to a four-year institution
2. Complete the replacement of the chairs in the various laboratory classrooms initiated in 2016.
3. Replace the chairs and repair some of the large tables in the two lecture rooms (MS- 121-& MS-122)
4. Identify program/course costs not currently cited in the catalog and modify the catalog language to reflect true costs more accurately.

III. Curriculum

A. Degrees and/or Certificates

Description / Evaluation:

- List degree and/or certificates offered in the program. Review/revise two-year plan(s).
  - Associate in Science Degree in Biology for Transfer
  - Associate in Arts Degree General Studies: Emphasis in Natural Science
  - Associate in Arts Degree University Studies: Emphasis in Natural Science
  - Associate in Science in Nutrition and Dietetics for Transfer
  - California State University General Education Certificate of Achievement
  - Intersegmental General Education Transfer Curriculum Certificate of Achievement

- Update scheduling sequence listed on course outline where needed (course outline and/or program revisions need Curriculum Committee approval)

  All the science courses have their course outlines updated based on the current scheduling sequence. For the Math courses, all of them are updated except for those of MATH-60, MATH-11B and MATH-6 (and -166). Due to the AB 705 the scheduling sequence for these courses were pending for changes and there would not be a definitive decision made until the following school year (2022-23). Currently the tentative schedule is to offer MATH-60 every spring and MATH-11B on odd springs. MATH-6 (and -166) would be offered in alternating sequence after discussing with other nearby campuses to maximize enrollment. As these scheduling plans are still tentative, the course outlines would be updated once a decision is made by the administration.

- Attach the approved two-year plan for each degree and certificate

  Please see Appendix IV for the two-year plans for the following degrees and certificate:
  - Associate in Science Degree in Biology for Transfer
  - Associate in Arts Degree General Studies: Emphasis in Natural Science
  - Associate in Arts Degree University Studies: Emphasis in Natural Science
  - Associate in Science in Nutrition and Dietetics for Transfer
  - California State University General Education Certificate of Achievement
  - Intersegmental General Education Transfer Curriculum Certificate of Achievement

- Degree and certificate student learning outcomes, if different from program student learning outcomes, should be included in this section.

  The student learning outcomes for the degrees listed below are the same as the PSLOs listed previously.

  Both California State University General Education Certificate of Achievement and Intersegmental General Education Transfer Curriculum Certificate of Achievement (IGETC) have the same SLOs:

  1. Understand and apply methods of inquiry for a variety of disciplines including the scientific method for scientific inquiry and appropriate methods for social and behavioral science inquiries
  2. Explain and analyze relationships between science and other human activities.
  3. Apply knowledge of the ways people act and have acted in response to their societies to express an appreciation for how diverse societies and social subgroups operate to understand social dynamics within historical and contemporary communities.
  4. Understand ways in which people throughout the ages and in Western and non-Western cultures have responded to themselves and the world around them in artistic and cultural creation; apply this knowledge to make value judgments on cultural activities and artistic expressions and demonstrate an understanding of the interrelationship between the creative arts, the humanities

and self.

5. Engage in verbal communication by participating in discussions, debates, and oral presentations utilizing proper rhetorical perspective, reasoning and advocacy, organization, accuracy, and the discovery, critical evaluation, and reporting of information.
6. Compose effective written communications and essays with correct grammar, spelling, punctuation and appropriate language, style and format utilizing academically accepted means of researching, evaluating and documenting sources within written works.
7. Analyze, evaluate, and explain theories, concepts and skills within varied disciplines using inductive and deductive processes and quantitative reasoning and application.
8. Demonstrate appreciation of themselves as living organisms through their choices for physical health, activities, stress management, relationships to the social and physical environment, and responsible decision-making.

- Faculty should analyze progress made on the assessment of program (degree/certificate) learning outcomes

  The assessment of the chemistry and geology program is constantly made and as there is only one instructor in the area, the assessment is completed by the instructor and changes are made to improve the student's course learning outcome in situ.

  For the Biology department, considering the further development of the LCC Nursing (among other programs), courses (such as BIOL 20- Microbiology) have been re-assessed to be offered more frequently. In addition, the Human Anatomy and Physiology was reassessed and re-designed to coincide with the curriculum of other schools and to better fit the timeline for summer to increase the frequency of the series being delivered.

  Since the implementation of AB 705 in 2019 Fall, the math faculties have been meeting regularly to discuss the program learning outcome for the math courses. Optional supporting math labs were developed considering the AB 705. After a year of implementation, the Math faculties assessed the student learning and has made these supporting Math labs mandatory for students taking the corresponding transfer level course (MATH-40/-164, MATH-7/-167, and MATH-8/-168). In Spring 2022, the district delivered the information from the Chancellor's office indicating that the throughput rate for the non-transfer level math courses were insufficient for the college to justify the offering of these courses. As a result, MATH-60 will not be offered starting Fall 2022 and MATH-11A would be offered as a short-term plan for the students who only need a transfer level math for their degrees.

- Evaluate the need for courses, degrees and/or certificates

  Since the last IPR, several courses have been deactivated due to low enrollment (MATH-1C – Analytical Geometry and Calculus III) and short of available instructors (MATH-11A – Concepts of Elementary School Mathematics I and MATH-11B – Concepts of Elementary School Mathematics II). As the change in schedule for Fall 2022 due to AB 705 (as discussed previously), the MATH-11A would be offered again in Fall 2022. However, MATH-11A is considered a short-term plan as the college develops another transferable level course or curriculum plan to meet the needs of the student. MATH-11A is considered a transferable level course but the content of that course does not prepare for the students with the necessary quantitative and analytical skills. A previously developed MATH-6 (Finite Math) is expected to provide the students with the necessary skills and replace MATH-11A moving forward.

- Transfer programs: Evaluate the core courses against the major preparation requirements for an entering junior at receiving four-year institutions (e.g. CSU System and UC System).
  The current curriculum provides multiple options in both life and physical science with and without a laboratory for completing Area B – Scientific Inquiry and Quantitative Reasoning of the California State University (CSU) General Education Certification, Area 5 –Physical and Biological Sciences of the Intersegmental General Education Transfer Curriculum (IGETC), and Area A – Natural Science for the non-transfer associate degree.

- Transfer programs: Evaluate the courses against the specific area requirements needed to satisfy the general education requirements for associate degrees and transfer. Consider whether there are adequate opportunities to meet the area requirements in combination with all disciplines within each general education area. Is there an adequate number of course and discipline options within each area, and can those courses be offered in a manner that maximizes student enrollment in each section? Do courses need to be added or deleted from any general education area?
  Currently the courses offered provide adequate opportunities to meet the area requirements in combination with all disciplines within each general education area. There is an adequate number of courses and discipline options within each area, and the courses are currently offered in a manner that maximizes student enrollment in each section with regards to the current staffing available. No current courses need to be added or deleted from any general education area.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning table at the end of the section for any recommendations requiring institutional action.

Align core courses within the mathematics/natural science program with the C-ID descriptors at they become available for comparison and submit for C-ID approval

B. Courses

Description / Evaluation:

1. Identify courses added or deleted from the instructional program since the last IPR.

Chemistry

- Deleted: CHEM-55 (Introductory Chemistry)
- Added: CHEM-45A (Introduction to Chemistry Discussion Session)
- Added: CHEM-40 (Survey of Physics and Chemistry) and CHEM-40L (Survey of Physics and Chemistry Teaching Labs)
- Added: CHEM-185 (Introduction to Chemistry Discussion Session)

A new Introductory Chemistry course was added to the program in Spring 2017 to meet the needs of many underprepared students (CHEM-55). This course was ultimately replaced by another new course (CHEM-45A) to target specific student needs in the Fall of 2019. The new chemistry course is a required co-requisite course for students entering the existing Introduction to General Chemistry (Chem 45) who have not taken any basic chemistry courses in the previous 4 years. This course was approved for CSU transfer as a 1-unit elective. After 3 years of implementation, an equivalent 0-unit course, CHEM-185, was created to replace the 1-unit CHEM-45A supporting course. This new 0-unit course is created as this would allow students with the need to enroll in the course when they identify the need (as suggested by the counseling department) and will be effective starting Fall 2022.
In addition, a new Survey of Physics and Chemistry (CHEM-40) along with a lab component (CHEM-

40L) was developed to offer students of non-science majors to complete their physical science with a lab requirement. This is intended to offer another option for the students than the Geology courses.

Success Rate Analysis for the Optional Chemistry Supporting Courses (CHEM-45A)
During the academic year of 2019-2020, a total of 52 students took CHEM-45. Out of the 52 students, 24 students enrolled in the optional supporting course and the average success rate of CHEM-45 for students enrolled in the supporting course is 49.28%. Based on instructor evaluation and unofficial surveys from the student, most students think that their grades improved upon entering the supporting class, and some students asked to enroll in the supporting course as the semester proceed. There is no conclusion to be drawn for the effectiveness of the supporting course as this is an need-based optional supporting course.

Biology

- Added: BIOL-21 (Human Anatomy with Lab) and BIOL-22 (Human Physiology with Lab)

A new course, BIOL-21 (Human Anatomy with Lab) and BIOL-22 (Human Physiology with Lab) was developed to better fit the summer teaching plan. There is currently an ongoing transition from the BIOL-25 (Human Anatomy and Physiology I) and BIOL-26 (Human Anatomy and Physiology II) to the new series.

Math

- Deleted: MATH-101, -102, and -103
- Added then deleted: MATH -107, -108, and -140
- Added: MATH-164, -167, and -168
- Added: MATH-6 and -166

Due to AB 705, the implementation of the accelerated Mathematics has resulted in MATH-101, -102, and -103 no longer being offered (last offered Spring 2019). In place the development of various supporting math lab courses was tailored to meet the needs of specific math courses (MATH-40, -7, and -8). Non-mandatory supporting math courses were created for each corresponding course (MATH-140, -107 and -108). These courses were evaluated based on positive attendance and tailored for students who need additional assistance in their courses. A year after the implementation (starting Fall 2020), The math instructors communicated and concluded that the supporting courses implemented in the prior year was effective and made the supporting course mandatory for all students. As a result, new math supporting lab classes were developed and made required for all students who are taking the main math course. These supporting labs and their corresponding transfer-level math courses are MATH-164, -167 and -168 to complement Elementary Statistics (MATH-40), Trigonometry (MATH-7) and Advanced Algebra (MATH-8) respectively.

Another change that was adapted to better aid the students is decreasing the section cap for all the basic math courses that is taught on campus through face-to-face modality to 24 students per section. This alteration was completed in Fall 2019.

In addition, a new math course, Finite Math (MATH-6) and its associated supporting lab (MATH-166) was developed to help students better prepare for advanced level math courses. This is an accelerated math course that covers similar contents in both MATH-7 and MATH-8.

Success Rate Analysis for the Math Supporting Courses

The success rate data from 2015 (as shown in the below figure) for MATH-7, -8, and -40 are used as a reference better evaluate the effectiveness of the non-mandatory supporting courses. The data used for the following analysis are shown below, where the data tables can be found in Appendix I Table 33-35.

Prior to drawing any conclusions to the effectiveness of the supporting courses, it is important to keep in mind that as the pandemic hits in March 2020, the courses were mandated to be taught remotely halfway through the semester. The sudden change in the learning and instructing environment occurred concurrently with the changes made for the math supporting courses, therefore it is impossible to isolate and make any conclusive statement about the effectiveness of the supporting courses. This drastically effects the success rates for students, especially when the students have never had to learn math in an online modality, left along the change in lifestyle due to the pandemic. Most of the instructors (all but one of the full-time instructors) has never instructed an online course prior to this semester and the sudden Shift in instruction modality presents a challenge. And these factors were also applicable for the academic year of 2020-2021. Despite the data being affected by the instructional and learning environment, some insights can still be valuable when evaluating the data.

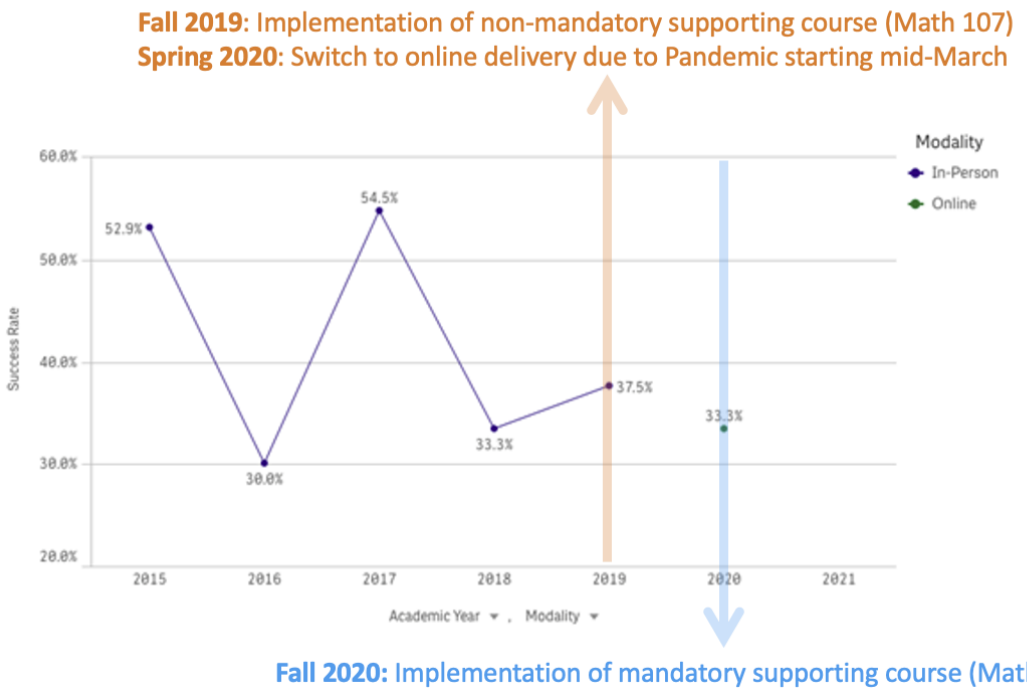
MATH-7 and its supporting courses (MATH-107 and -167)

Referencing to the below figure, the success rates for MATH-7 fluctuates drastically over the years. There is a slight increase in the success rates of MATH-7 upon the implementation of the non-mandatory supporting courses (MATH-107) in 2019 compared to the previous academic year. While MATH-7 is only offered in Fall semesters and was therefore not affected by the pandemic in the academic year of 2019, the data is still hardly conclusive due to the fluctuation in success rate over the past years as well as the small sample size. As MATH-7 is only offered 1 section for each academic year.

During the academic year of 2019, there were a total of 8 students assessed for MATH-7. Out of the 8 students, 3 students took the optional supporting course (MATH-107) and 5 did not. Out of the 3 students who took the optional supporting course, only 1 succeed in Math 7. Out of the 5 students who did not take the supporting courses, 2 passed the course. The success rate of 37.5% was contributed by 3 out of the 8 students passing.

During the academic year of 2020, MATH-7 was delivered online for the first time in the past years with its supporting course (MATH-167) also delivered completely online. The success rate for MATH-7 in 2020 decreases compared to the previous year. However, this observation cannot be correlated to the effectiveness of the mandatory supporting course, as the effect of the pandemic plays in important role in the learning and instructional environment.

Math 7 Success Rate by Modality over the academic years 2015-2020



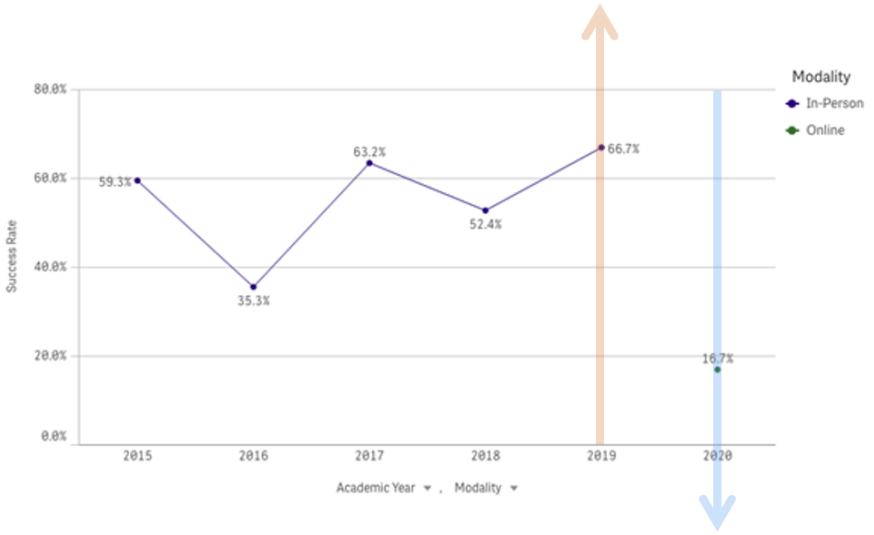
The sample size is small (average of 14 students for each academic year, see Appendix I Table 36) and the percentage can be easily affected by individual student's performance. As a result, there cannot be a correlation drawn between the effectiveness of the optional supporting course and the success rate based on the data provided. To better assess the effectiveness of the MATH-7 mandatory supporting course, it is important to reference the data collected to other institutions where similar approaches were taken.

MATH-8 and its supporting courses (MATH-108 and -168)

Referencing to the below figure, the success rates for MATH-8 fluctuates drastically over the years. There is a slight increase in the success rates of MATH-8 upon the implementation of the non-mandatory supporting course (MATH-108) in 2019 compared to the previous academic year. MATH-8 is only offered once a year during spring semesters, except for the academic year of 2019 where it was offered in both Fall and Spring semesters. While spring semester of the academic year 2019 is affected by the pandemic, its fall semester was not. The success rate for Fall 2019 (50.0%) when the non-mandatory supporting course was offered decreased compared to the previous spring semester (Spring 2019) whose success rate was 52.4%. These two semesters were comparable in terms of modality and the only factors that was altered was the addition of the non-mandatory supporting course, however, there cannot be a correlation drawn due to the small sample size (one section each). The success rate for Spring 2020 is 72.7%, and this is the semester affected by the pandemic. This increase in success rate can be contributed by the addition of non-mandatory supporting course or the increase in student drop rate (as observed by instructor) after switching to online modality in March 2020.

Math 8 Success Rate by Modality over the academic years 2015-2020

Fall 2019: Implementation of non-mandatory supporting course (Math 108)
Spring 2020: Switch to online delivery due to Pandemic starting mid-March



Fall 2020: Implementation of mandatory supporting course (Math 168)

During the academic year of 2019, a total of 18 students were assessed. Out of the 18 students, 12 students enrolled in the optional supporting course MATH-108 and 6 did not. Out of the 12 students who took MATH-108, 6 passed the course. And for the 6 students who did not take the supporting course, 4 passed MATH-8. Overall, the success rate was 56.6%.

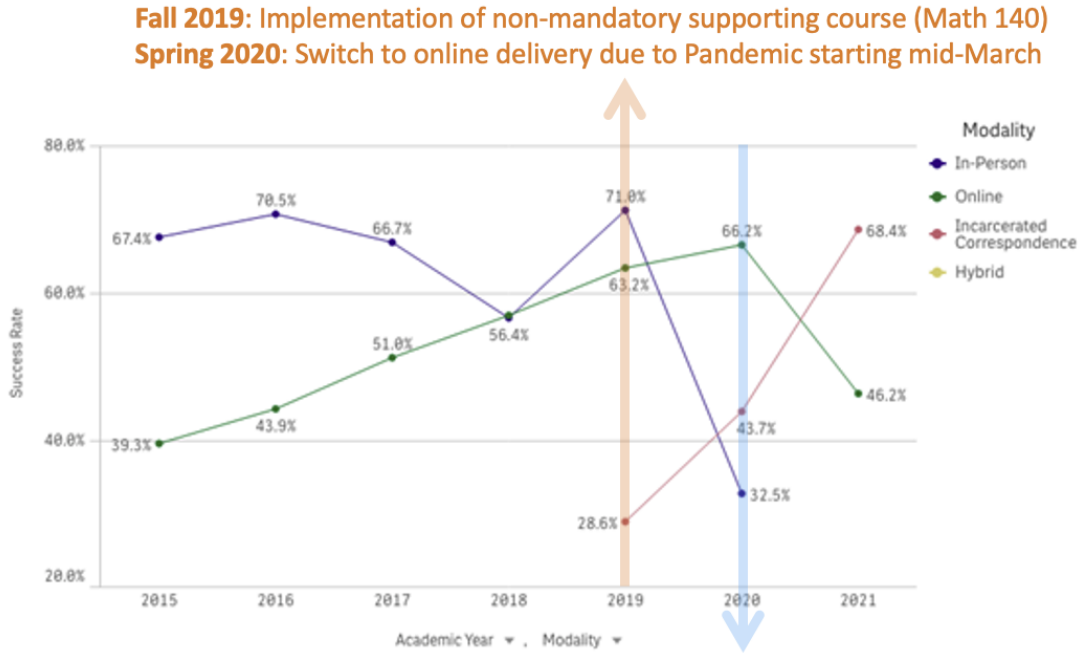
During the academic year of 2020, MATH-8 was delivered online for the first time in the past years with its supporting course (MATH-168) also delivered completely online. The success rate for this course was 16.7%, which is significantly lower compared to the previous years. However, this observation cannot be correlated to the effectiveness of the mandatory supporting course, as the effect of the pandemic plays in important role in the learning and instructional environment.

Another important factor to note is that there is only one section of MATH-8 offered each academic year (except for 2019) and therefore the sample size is small (an average of 19 students assessed per academic year, see Appendix I Table 36), and the percentage can be easily affected by individual student's performance. As a result, there cannot be a correlation drawn between the effectiveness of the optional supporting course and the success rate based on the data provided. To better assess the effectiveness of the MATH-8 mandatory supporting course, it is important to reference the data collected to other institutions where similar approaches were taken.

MATH-40 and its supporting courses (MATH-40 and -164)

Referencing the below data for the success rate of MATH-40 over the past years, an important thing to note is that the sample size assessed drastically increased (see Appendix I Table 36) starting the academic year of 2019 due to the removal of Math 101, 102, and 103. Even prior to this change, there are around 3 sections of MATH-40 offered for fall and spring semesters each year. Therefore, this is by far the largest sample size that is being evaluated (compared to MATH-7 and -8) and can therefore offer a more realistic insight of the effectiveness of the various changes made. As this course is offered frequently, the evaluation would be focused on the different modalities.

Math 40 Success Rate by Modality over the academic years 2015-2020



For the In-Person delivery modality, the success rate was relatively consistent prior to the year of 2018. Starting 2019, the non-mandatory supporting course (MATH-104) was offered and a drastic increase in success rate was observed. Looking further into the data, prior to Fall 2019, the average success rate for the In-Person course delivered from 2015 is 65.15%. With the non-mandatory supporting course offered in Fall 2019, the success rate for that semester increased to 67.8%. Considering with the number of MATH-40 sections offered and the larger sample size in Fall 2019 (the number of students assessed nearly doubled that of 2018, and significantly higher than the average of the pervious years), this increase in success rate can be correlated to the effectiveness of the non-mandatory supporting course offered. The success rate for Spring 2020 semester was 76.7%, however, due to the pandemic, this can be a contribution of the increase in student drop rate (as observed by the instructor), switch to online delivery modality, as well as the non-mandatory supporting course. Therefore, this data cannot be used to draw any correlation between the success rate and effectiveness of the non-mandatory supporting course. Starting the academic year of 2020, the mandatory supporting course (MATH-164) was implemented. However, this year the only In-person course for MATH-40 was offered at the incarcerated institution, which is observed to have a low success rate due to the complicated learning environment. Therefore, this data cannot be used to evaluate the effectiveness of the mandatory supporting course.

MATH-40 was offered through correspondence delivery starting the academic year of 2019, which has a non-mandatory supporting course associated to begin with. The success rate of the correspondence MATH-40 course with non-mandatory supporting course was 28.6% where 64 were assessed. The delivery modality for correspondence courses was not affected during the pandemic, and its effect of the student learning environment at incarcerated institutions is unknown. Starting the academic year of 2020, the mandatory supporting course was implemented and the success rate for the correspondence MATH-40 course increased to 43.7%.

And the success rate for Summer 2021 is 68.4%. This data suggests a positive correlation between the effectiveness of the mandatory supporting course and the success rate for correspondence students for this course.

For the online delivery modality, there was only a couple sections offered per semester prior to the academic year of 2017, therefore the sample size is very different. In the past years where it was offered (2017 and 2018) has an average success rate of 53.70% and is increases every year (an average of 114.5 students assessed each year. Starting 2019 when the non-mandatory supporting course was offered, the success rate increased to 63.2%, where 153 students were assessed. This supports a positive correlation between student success rate and the effectiveness of the non-mandatory supporting course as the online modality was not affected by the pandemic in terms of the sudden change in delivery modality that the in-person courses experience. In the academic year of 2020, the mandatory supporting course was offered. And it is also the academic year where the largest sample size for this section was assessed. The success rate increased to 66.2%. This suggests that the effectiveness of the mandatory supporting course has a positive correlation to the online MATH-40 courses. The most recent data provided was the Summer 2021 semester, where the success rate for online modality experienced a drastic drop to 46.2%. However, there was only 1 section offered during Summer 2021 in this modality and the small sample size can contribute to the drop. This is a good example of how the small sample size can be easily affected by student's individual performance (as discussed in the assessment of MATH-7 and MATH-8 supporting course previously).

Despite the different factors that may contribute to the dataset, there are multiple observations and conclusions that can be made from the data provided. First, the effectiveness of the non-mandatory supporting course has a positive correlation to the success rate when delivered in-person. Second, the implementation mandatory supporting course results in an increase in student success rate for both correspondence and online delivery. With the large dataset obtained in MATH-40 (which is also the largest sample size that the math department can be obtained at LCC), the observations and correlations drawn is the most representative and conclusive amongst the analysis for the different supporting courses implemented.

Based on the analysis and evaluate for the student success data provided in the past years, the college is providing effective aid for students in MATH-40, -7, and -8 by offering supporting courses. Based on the MATH-40 data, which is the most representative one due to the larger sample size, the mandatory supporting courses has a positive effect on the student success rate. Continue assessment and implementation of mandatory supporting courses is recommended.

2. Each course offered within the instructional program must be reviewed for accuracy and currency (see Attachment I, Course List by Program). Review of each course outline should include asking the following questions:
   - Should the Disciplines of Assignment remain the same or be changed?
   - Should the Catalog/Schedule description remain the same or be updated?
   - Is the course repeatable? Is the repeatability reflected in the SLOs, Objectives, and Course Content sections? What is the basis for repeatability: legal requirement or increased skill level?
   - If the course meets a core requirement within specific degrees or certificates, is it accurately noted on the outline?
   - If the course satisfies a specific area within the general education requirement for an associate degree or transfer, is it accurately noted on the outline?

- Are course-level student learning outcomes included on each course outline? Are learning outcomes included for each allowable repetition?
- Does the course require a prerequisite or have recommended preparation? Are content review forms on file for each recommended preparation and/or prerequisite?
- Do any of the learning outcomes or objectives need revision?
- Does any content need to be updated?
- Are any changes necessary in the Methods of Instruction, Assignments, Critical Thinking or Methods of Evaluation sections?
- Is the course being considered for distance education offering? If so, has it been approved for specific distance education delivery?
- Is the textbook current (within the last 7 years for transfer courses) and is the publication date included?
- Does the course outline match the two year plan with regard to sequence of course offerings?

3. Whether changes to a course outline are necessary or not, a Revision to Existing Course Form for each course must be completed and submitted to the Curriculum/Academic Standards Committee for action. When changes are necessary, indicate the revisions on the form. Where no changes are necessary, simply indicate on the Revision Form that "the course has been reviewed as part of the program review and no changes are necessary." Revision forms will be retained in the Instructional Office with the Curriculum agenda packets.
   See Appendix V for the Instructional Program Curriculum Review.

4. Following the Curriculum/Academic Standards Committee action on all submitted Revision to Existing Course Forms, a summary Instructional Program Curriculum Review Form will be completed by the Curriculum/Academic Standards Subcommittee Chair and given to the program faculty for inclusion in the program review.
   See Appendix V for the Instructional Program Curriculum Review.

5. The signed Instructional Program Curriculum Review Form is to be included with your completed program review documents for all certificates and degrees.
   See Appendix V for the Instructional Program Curriculum Review. The ASTR-1 has been submitted for IGETCE and GE approval but has not been approved yet as of the end of 2022 academic year.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning table for any recommendations requiring institutional action.

Continue analysis of the effectiveness for the Math supporting courses in comparison to other campuses providing similar support.

C. Articulation/Integration of Curriculum

Description / Evaluation:

1. Attach a tabular comparison of Lassen Community College courses articulating with UC and CSU, indicating courses with approved C-ID designations as applicable (Obtain copies of Articulation Agreements from the Transfer Center)

   See Appendix VI for the Articulation Agreement Table

2. Provide a narrative reviewing the Lassen Community College courses and courses at four-year institutions for course alignment (i.e. two courses at Lassen needed to articulate with one course at UC). Please also provide the unit requirements for Lassen Community College courses as compared to four-year institutions.

   The implementation of the C-ID system has shifted the focus for courses with approved C-ID descriptors to obtaining C-ID approval for those courses. Articulation agreements remain in place for all of the degree applicable courses within the Mathematics/Natural Science program.

   Articulation agreements are maintained through the efforts of the Transfer Center under the direction of the Articulation Officer. The Articulation Officer works with individual instructors and receiving institutions to resolve articulation issues. All transfer level natural science and Mathematics courses, which are listed as satisfying the general education requirement of the CSU and UC systems, articulate with those institutions. The Articulation Office updates the agreements annually

Planning Agenda:

Complete Student Services Planning table (see below) for any proposed changes to articulation or C-ID designation

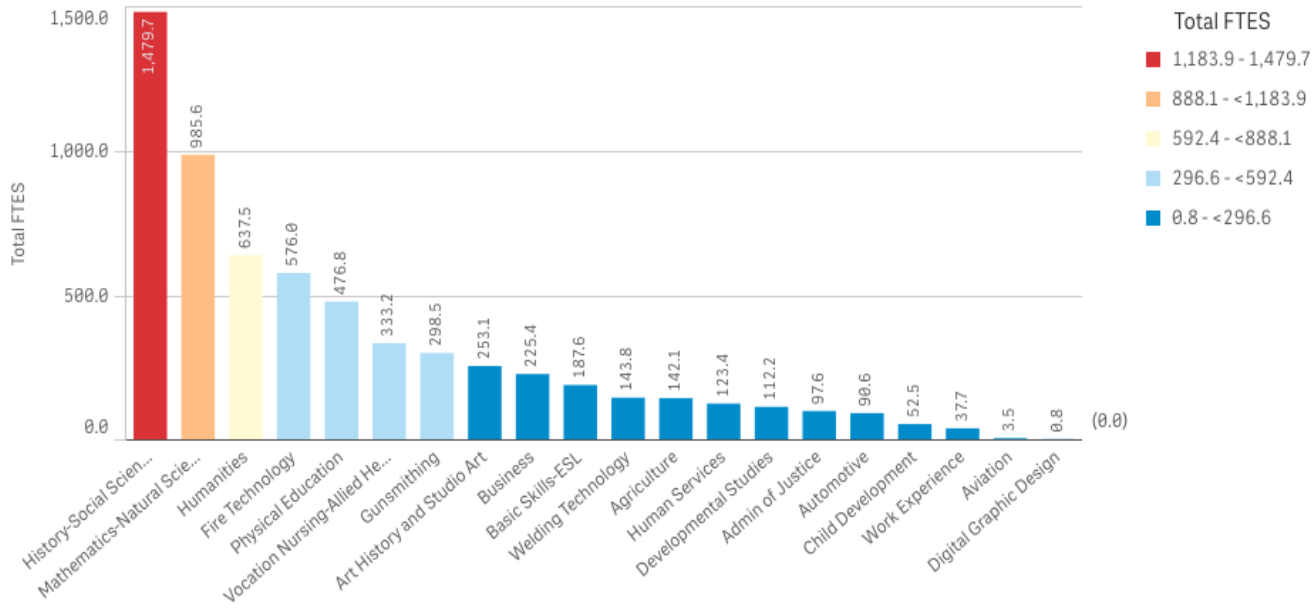
1. Submit core courses within the mathematics/natural science program for C-ID approval as the C-ID descriptors become available for comparison
2. Continue evaluation of the effectiveness of the math supporting labs by assessing student success on LCC campus as well as across the state.

IV. Scheduling and Enrollment Patterns

Description / Evaluation:

a. **Describe and explain any deviation from the two-year plan in course scheduling during the last four years.**
In the 4 years the NS/M program has been making efforts to follow the two-year plan in course scheduling.

b. **Evaluate the relationship between schedule, enrollment patterns and FTE generated statistics.**
From 2017-2019, a total of 985.60 FTEs has been generated from the NS/M program (second highest amongst all programs at LCC) as shown in the below table. (See chart below)



The overall FTES shows a downward progression for the program as shown in the table below:

Program	Totals	2017			2018			2019		
		FA	SU	SP	FA	SU	SP	FA	SU	SP
Totals	**985.60**	**126.67**	**32.87**	**126.18**	**128.17**	**33.93**	**96.13**	**115.82**	**41.93**	**101.73**
Mathematics-Natural Science	985.60	126.67	32.87	126.18	128.17	33.93	96.13	115.82	41.93	101.73
Basic Skills-ESL	59.52	14.63	7.47	12.61	9.74	4.53	6.40	-	4.13	-

As LCC has a large student athlete population, the Math and science courses tend to schedule around the practice time (avoiding afternoon courses) and offer the courses in morning and evenings. However, this tends to lead to conflicts in classroom needs as there are only several classrooms on campus that can seat more than 35 students and have the area that is available for students to conduct in class activities (MS 121 and MS 122 being an example of the popular classrooms). The NS/M program has been dedicated to fit the course schedule to better fit the student's needs.

c. Using FTE data provided, evaluate how the scheduling of courses within the program has served the needs of a variety of students (e.g. day, evening, single parents, employed full-time).
Include the following considerations:

- Number of sections (too many/too few to serve student needs)

Based on the data shown in Appendix I Table 37, the course with the highest FTES is Math-60 (which would not be offered starting Fall 2022), and Math 103 and MATH-40. Math 103 has not been offered since Spring 2019. Math-40 is the course that generates the highest FTES and is still being offered, and this is likely due to the need for a transferable level Math course for the various degree / certificates offered on campus. There are sufficient sections of MATH-40 offered for each term to fit the student's need. For the Biology courses, the course that generates the highest FTES is BIOL-25, and most of the time the school was able to offer 2 sections of it per Fall term to meet the student's need.

BIOL-4 replaced the Principles of Botany and Principles of Zoology courses offered each of the last three springs with extremely low enrollments, it is suggested to move the class in the two-year plan to being offered only odd springs. BIOL-10 has not been offered consistently as an option for students to fill their GE needs of a life science with a lab, it is suggested to schedule it according to a two-year plan as an alternative to BIOL-32L. Currently, both BIOL-32 (3-unit lecture) and BIOL-32L (3-unit lecture and 1-unit lab) would be offered Fall 2022 as both the counseling and instruction saw the need for BIOL-32 to be offered for students who does not need the laboratory component.

Physical Anthropology has not been taught during the day for a number of years. This life science without a laboratory could be a beneficial addition to the day program if an instructor could be found (consistently over the terms).

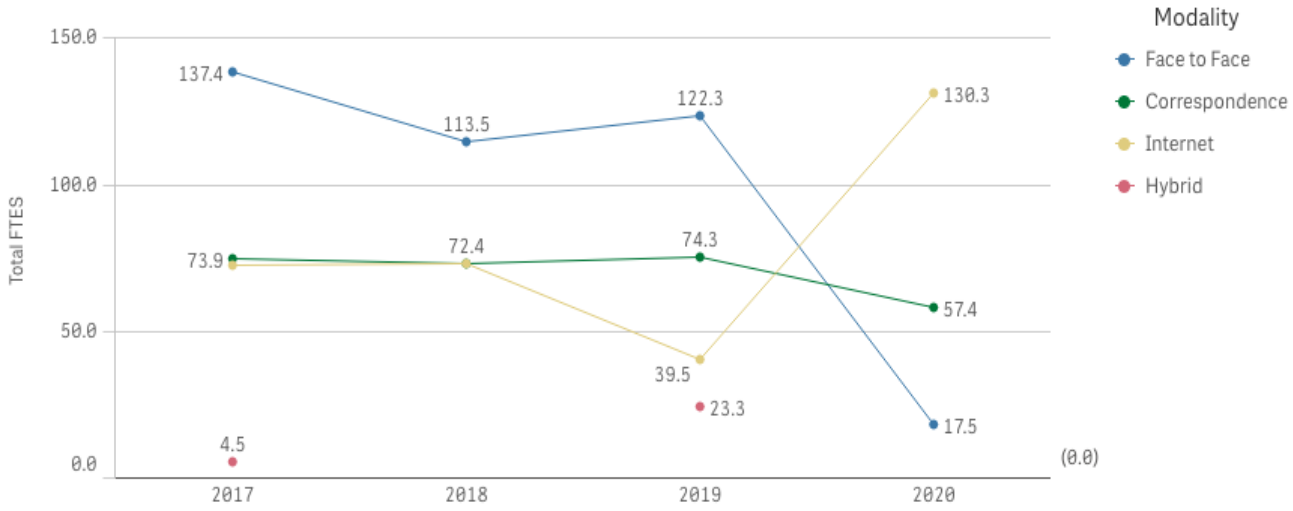
The scheduling of the one-year Physics sequence alternate years has not resolved the low enrollment, but the courses are extremely important to students majoring in biological and several physical sciences.

- Variety of times (three times a week, twice a week, one day a week and morning/afternoon/evening)
  Based on the data shown below, the time frame that generates the highest FTES are classes starting at 8:00 am, followed by 13:00 pm, and 10:00 am. Then evening sections starting at 17:30 pm came in forth. The high FTES at 8:00 am is likely due to the morning lab courses. Afternoon courses mainly serve non-athletic students as the athletes have scheduled practice in the afternoon (sometimes starting at 11 am). The evening courses starting at 17:30 pm usually consist of athletes (as they've finished their afternoon practice) and working individuals. In general, the NS/M program has served the needs for the students when possible.

Time of Day	Academic Year: 2017 FA	2017 SP	2018 FA	2018 SP	2019 FA	2019 SP	2020 FA	2020 SP
08:00	23.9	16.0	17.2	6.0	18.2	3.8	-	0.3
08:50	-	-	-	-	-	7.0	-	-
09:00	2.6	-	5.4	3.8	2.4	5.6	5.5	2.0
09:20	-	-	2.8	-	1.1	-	-	-
09:30	-	2.3	0.4	-	1.8	1.2	2.1	4.4
10:00	10.8	11.6	10.8	12.1	6.9	1.5	1.0	-
10:10	-	-	-	-	-	3.7	2.2	-
10:20	-	-	0.2	-	-	-	-	-
10:30	-	-	-	-	-	-	1.7	-
11:00	8.7	5.3	6.1	5.1	6.7	4.3	4.2	2.0
11:30	-	-	-	-	-	1.9	-	-
12:00	4.2	2.7	-	-	4.7	5.2	1.7	-
12:30	-	-	-	-	0.6	-	-	-
13:00	12.4	11.3	17.7	9.6	11.6	8.0	-	-
14:00	-	-	-	-	1.0	2.4	-	-
14:30	-	-	-	-	-	-	1.5	-
15:00	-	-	-	-	6.0	1.3	1.4	-
16:40	-	-	-	-	2.2	-	-	-
17:00	-	-	-	1.2	2.3	-	-	-
17:15	-	-	-	-	-	2.2	-	-
17:30	12.2	14.7	8.6	5.6	0.8	4.0	-	-
18:00	-	-	0.8	-	-	-	-	-
18:20	-	-	-	-	1.7	-	-	-
18:40	-	-	-	-	-	1.9	-	-
19:00	-	-	-	-	0.2	0.1	-	-

- Length of courses (traditional semester/short term)
  All the courses in the NS/M program are offered semester-long and there are no short-term courses.

- Method of delivery (traditional/technology-mediated/correspondence delivered instruction).
  The FTES generated from Face-to-Face modality (web-enhanced or not) was higher than the other modalities in the 4 years except for the year of 2020 where most of the course was delivered remotely (as the spike in the FTES generated by Internet modality reflected). The Correspondence modality has generated relatively consistent FTES and was not affected by the pandemic as much compared to the other modalities. Based on qualitative student feedback that the instructors have received from the students as well as the counseling department, that some students prefer the Math and science courses to be taken face-to-face (web-enhanced or not). As a result, the Math and science courses were one of the first ones to return to face-to-face or hybrid instruction in Fall 2021 as the epidemic slowed down. It is important to note that the sudden switch to online modalities, and the resulting student preferences in comparison with previous face-to face experiences may be affected by the suddenness of the shift, other life-impacts brought on by the Covid-19 Pandemic, in addition to lack of experience with online modalities and the variety of tools available to instructors.



d. Evaluate student access to general education courses within the context of the scheduling of the instructional program courses.

In general, the number of sections and the time when the course is offered can meet the student's needs to access general education courses. The Math department also has a fair number of courses that are offered through online modality that the students can access if their time does not fit the course schedule. Physics 2A and 2B is offered every other year as the FTES for that course is usually too low to justify it being offered every year. Based on the student survey (as shown in Appendix III), the scheduling is meeting most of the student's needs. There are students who requests for classes offered in a variety of time during the day, as well as offering courses (not specified) in both fall and spring semesters. The counseling department as well as the instructors in the program always try to provide as many options to the students as possible, however, the scheduling is limited by the number of students to fill the class as well as the limit in instructor's teaching load.

A further analysis into student modality preference (See image below)

However, in the wake of the Covid-19 pandemic there may be shifts in student preference as can be noted by the quantified data collected from the BIOL-32L class in Fall 2021; where in person lecture was less favored than some online lecture modalities for some classes. It can also be seen that among the students who say they are comfortable with in-person classes over half of them are also comfortable with online lectures in one form or another. Additionally, some students expressed a combination of in-person and online lecture forms may be preferred. For this reason, we are exploring the option of hybrid

classes with in-person assigned spaces and times. Please take note that this is a small sample size, and only covers Biology courses taught in Fall 2021. (See graph below)

F2021- Bio32L- 13 students responded

Select any and all that apply. Which of the following **lecture delivery methods** would you be **comfortable** with?

In person lecture (in an on-campus classroom at a specified time)	4 respondents	**31 %**
Online lecture through canvas (self-paced)	7 respondents	54 %
Online lecture through YouTube or other platform (self paced)	5 respondents	38 %
Online lecture through canvas (assigned weekly)	4 respondents	31 %
Combination of in-person and online lecture (either canvas, you tube or other platform)	3 respondents	23 %

F2021-Biol20- 10 students responded

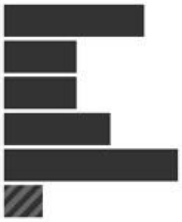
Select any and all that apply. Which of the following **lecture delivery methods** would you be **comfortable** with?

In person lecture (in an on-campus classroom at a specified time)	7 respondents	**70 %**
Online lecture through canvas (self-paced)	4 respondents	40 %
Online lecture through YouTube or other platform (self paced)	4 respondents	40 %
Online lecture through canvas (assigned weekly)	4 respondents	40 %
Combination of in-person and online lecture (either canvas, you tube or other platform)	5 respondents	50 %

F2021-Biol25- 9 students responded

Select any and all that apply. Which of the following **lecture delivery methods** would you be **comfortable** with?

In person lecture (in an on-campus classroom at a specified time)	4 respondents	**40 %**
Online lecture through canvas (self-paced)	2 respondents	20 %
Online lecture through YouTube or other platform (self paced)	2 respondents	20 %
Online lecture through canvas (assigned weekly)	3 respondents	30 %
Combination of in-person and online lecture (either canvas, you tube or other platform)	5 respondents	50 %
No Answer	1 respondent	10 %



Planning Agenda:

Complete Academic Planning table (see below) for any proposed changes in the schedule that might improve enrollment patterns and better meet student needs.

1. Schedule traditionally low enrollment core courses (Biol 4, Chem 1A, Chem 1B, Math 1A, Math 1B, Phys 2A, Phys 2B,) according to the two-year plan to provide students with the opportunity to complete most of the core requirements for a variety of engineering and science majors at LCC.
2. Increases courses of hybrid delivery modality to expand the time during the week when instructors can offer class.

V. Equipment

Description / Evaluation:

1. List capital outlay equipment, age of equipment and replacement schedule

Items with Purchasing Record

The record of these items was checked with the Fiscal Service as well as Administrative Assistant III and Academic Services in March 2022.

Item	Amount	Manufacture	Purchase time	Age (year)	Lifetime (year)	Replacement schedule
Dell Latitude E5550	24	Dell	December 2015	8	5-7	Needs to be replaced
Physics Lab Equipment		PASCO	July and September 2017	5	5-7	As determined by the instructor

Items without Purchasing Record

All the listed items below were compared with the most recent deprecation list submitted for audit by fiscal service. As these items are not on the deprecation list, these items have been fully depreciated. Based on the fiscal service, most of the items would have a lifetime of 5-7 years and some 10 years. The record for items purchased prior to 2014 have been shredded. These items were also checked by the current Administrative Assistant III who has been working in this position since Spring 2012, and there was no record to be found for these items. As there are no records of these items and they are at least 10 years old, all the items are subjected to immediate replacement as determined by the instructor for the classes. The name, manufacture, and amount of each item listed below are as found on the item itself.

Capital Outlay Item	Amount	Manufacture
Rock Saw (10-inch)	1	Ray Tech Industry
Rack Saw (14-inch)	1	Covington
Flat Polisher (6-inch)	1	Eberbach Corp
Telescope (8-inch)	1	Celestron-BYERS
Telescope (6-inch)	1	Criterion
Telescope (8-inch)	1	Criterion
Solar Telescopes	2	Questar
Phase / Dark Field Microscope	8	Swift
Bright Field Microscope	17	Swift
Bright Field Microscope	9	National
Bright Field Microscope	24	Wolfe
Dissection Microscopes	~40	AO instrument Company
Histology Storage	15	
Histology slides	300+	Various

2. Identify any existing equipment maintenance/service agreements
   N/A

3. Evaluate the condition of capital outlay equipment in light of the replacement schedule and available funds.
   Biology
   For the biology teaching labs, a lot of the histology slides are out of date, broken, or are in otherwise poor condition and need to be purchased. There are a lot of items and equipment in the biology lab that were purchased using the general funds, but constant replacement and maintenance is needed.

   Geology
   To have a functioning geology program, it is highly recommended for the budget to set aside for purchasing new rock saws and flat polishing.

   Astronomy
   Currently there is no astronomy courses offered on campus and therefore the telescope is not being maintained regularly. Their current condition (And whether it is still functioning) is unclear as there is no expert on campus to evaluate it.

4. Evaluate the effectiveness of and need for additional maintenance/service agreements.
   While a lot of the items are still functional, the equipment is out of date, and it is highly recommended that the school dedicate sufficient budget to help replace the older items in the science department. The out-of-data equipment results in the science program not being able to conduct experiments based on current recommended instructions and safety regulations.

5. Justify any proposed modification or additions to equipment available for students and/or faculty/instructional assistants within the program.
   Microscope Repair has been performed by the same contractor for the last 5+ years with excellent service, but he retired in 2022 and the future of that service is unclear.

Planning Agenda

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Student Services Planning, Facilities Planning, or Technology Planning tables as appropriate for any recommendations requiring institutional action.

1. Regularly scheduled microscope repair

VI. Outside Compliance Issues (if appropriate for program)

Description:

If appropriate, describe the role of outside compliance issues on the Special Program

The MS building houses various chemical and biological waste from the associated teaching labs. As a result, proper guidance is needed to make sure that all the waste is stored properly, and the facilities comply with OSHA requirements.

Evaluation:

Assess changes in compliance or identification of compliance-related needs and the impact on the Special Program.

Due to the lack of waste management in the past years, there are various compliance issues in the building that do not meet the OSHA regulation. This results in an unsafe instructional space for the students as well as employees. While the biological waste is scheduled to be picked up once a year, the chemical waste has not been picked up for at least 10 years prior to 2019. The storage in the waste as well as management of the waste during the time when waiting for a waste pickup presents a challenge as there is no clear guidance as to how the waste can be stored properly. Currently the biology lab waste are stored based on "past practice" and the chemistry lab waste are stored and managed based on the input from the chemistry instructor as well as the instructional specialist.

Planning Agenda

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Facilities Planning, Technology Planning and Human Resource Planning Forms as appropriate for any recommendations requiring institutional action.

1. A Chemical Hygiene Officer is needed to help manage the waste around campus. This position is required by OSHA and needs to be titled by the school officially (written into the job description. The responsibility of this individual includes but is not limited to making sure the SDS is up to date, ensuring that the chemical management plan is followed, and ensuring that the waste disposal schedule is followed.
2. A Chemical Management Plan and a Hazard Communication Compliance is needed to guide the employees in how to properly manage the waste and hazards.

VII. Prioritized Recommendations

A. Prioritized Recommendations for Implementation by Program Staff

List all recommendations made in Section One that do not require institutional action (i.e. curriculum development) in order of program priority.

1. Align core courses within the mathematics/natural science program with the C-ID descriptors at they become available for comparison and submit for C-ID approval
2. Submit core courses within the mathematics/natural science program for C-ID approval as the C-ID descriptors become available for comparison
3. Establish consistency in the same course taught by different instructors

B. Prioritized Recommendations for Inclusion in the Planning Process

List all recommendations made in Section One that should be included in Lassen College's planning and budgeting process, specifically in the Educational Master Plan, Student Services Master Plan, or Institutional Effectiveness Master Plan.

Educational Master Plan

1. Pilot a project to improve attendance in Mathematics and science courses and assess impact on success rates.
2. Identify program/course costs not currently cited in the catalog and modify the catalog language to more accurately reflect true costs.

Student Service Master Plan

1. Schedule traditionally low enrollment core courses (Biol 4, Chem 1A, Chem 1B, Math 1A, Math 1B, Phys 2A, Phys 2B,) according to the two-year plan in order to provide students with the opportunity to complete the majority of the core requirements for a variety of engineering and science majors at LCC.
2. Increases courses of hybrid delivery modality to expand the time during the week when instructors can offer class.
3. Pilot projects in Gatekeeper courses, incorporating active learning strategies, learning communities, student-peer mentoring and writing across the curriculum to increase student success. This should include training and assistance in building and integrating the various online and canvas tools at the instructors' disposal
4. Expand offerings of online or distance tutoring opportunities to meet students' varied needs.
5. Expand the tutoring program to increase the number of embedded tutors in the Math courses as well as higher and consistent coverage in tutoring hours.

Institutional Effectiveness Master Plan

1. Implement an CSLO tracking system that allows all the PSLOs to be assessed.
2. Assess the relationship between poor attendance and lack of success in Mathematics and science courses and identify the variety of factors contributing to poor attendance. This should be followed up with evaluating what measures can be taken by faculty and the institution at large to support the students in helping them achieve success in the classroom.
3. Track the effectiveness of implemented recommendations in subsequent student learning outcome assessments to better determine their effectiveness.
4. Promote general education certification in preparation for transfer to a four-year institution
5. Continue analysis of the effectiveness for the Math supporting courses in comparison to other campuses providing similar support.

Separate recommendations into the appropriate plan(s). Items to be included in the Human Resource Master Plan, Institutional Technology Master Plan, or Facilities Master Plan should be addressed in Sections Two, Three or Four in lieu of or in addition to inclusion in the Academic Master Plan. See Attachment C, Master Plan Overview, in the IPR handbook to determine where recommendations are best placed.

Prioritized Recommendations for Inclusion in Education Master Plan: The EMP addresses the instructional planning needs of the college.

Natural Science and Mathematics, 2022

** Note: "Estimated Cost" includes calculated Total Cost of Ownership as described in Section I*

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost * (implementation & ongoing)	Expected Outcome
1, 2, 4	Identify program/course costs not currently cited in the catalog and modify the catalog language to reflect true costs more accurately.	Fall 2023	N/A	The students would have a better understanding of what the cost of each course would be when register for courses
1, 2, 4	Pilot a project to improve attendance in Mathematics and science courses and assess impact on success rates.	Fall 2023	N/A	An increase in % student learning outcome achieved and increased student success and retention rate.

Prioritized Recommendation for Inclusion in Student Services Master Plan: The SSMP highlights the services needed to maximize the student experience through a variety of key student support services.

Natural Science and Mathematics, 2022

** Note: "Estimated Cost" includes calculated Total Cost of Ownership as described in Section I*

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost * (implementation & ongoing)	Expected Outcome
1, 2, 4	Expand the tutoring program to increase the number of embedded tutors in the Math courses as well as higher and consistent coverage in tutoring hours.	Fall 2022	As deemed necessary by the student service department	Students would receive consistent and robust support for tutoring in Math and science
1, 2, 4	Expand offerings of live online or distance tutoring opportunities	Fall 2022	As deemed necessary by the student service department	Students would receive consistent and robust support for tutoring in Math and science

1, 2, 4	Pilot projects in Gatekeeper courses, incorporating active learning strategies, learning communities, student-peer mentoring and writing across the curriculum to increase student success. This should include training and assistance in building and integrating the various online and canvas tools at the instructors' disposal	Fall 2022	As deemed necessary by the student service department	Students would have the chance to receive peer-support from their peers and increase their success and retention rate. The students would enter the class well-trained in using the online learning management system (Canvas)
1, 2, 4	Increases courses of hybrid delivery modality to expand the time during the week when instructors can offer class.	Fall 2022	N/A	To increase enrollment by offering students with more options to better fit their work schedule
1, 2, 4	Schedule traditionally low enrollment core courses (Biol 4, Chem 1A, Chem 1B, Math 1A, Math 1B, Phys 2A, Phys 2B,) according to the two-year plan in order to provide students with the opportunity to complete the majority of the core requirements for a variety of engineering and science majors at LCC.	Fall 2022	N/A	To allow STEM students to have a chance to complete associated courses for transfer

Prioritized Recommendations for Inclusion in Institutional Effectiveness Master Plan: The IEMP addresses college needs not addressed in other plans. These needs include research, governance, outcome assessment, and administrative operations.

Natural Science and Mathematics, 2022

** Note: "Estimated Cost" includes calculated Total Cost of Ownership as described in Section I*

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost * (implementation & ongoing)	Expected Outcome
1, 2, 4	Continue analysis of the effectiveness for the Math supporting courses in comparison to other campuses providing similar support.	Fall 2023	As deemed necessary by the Institutional Effectiveness department	A better understanding of the effectiveness for the supporting courses that can be used for further discussions as to how to best assist the students in math
1, 4	Track the effectiveness of implemented recommendations in subsequent student learning outcome assessments to better determine their effectiveness.	Fall 2023	As deemed necessary by the Institutional Effectiveness department	An increase in % student learning outcome achieved and increase student success and retention rate.
1, 3	Implement an CSLO tracking system that allows all the PSLOs to be assessed.	Fall 2023	As deemed necessary by the Institutional Effectiveness department	Assessment of the PSLOs
1, 4	Assess the relationship between poor attendance and lack of success in Mathematics and science courses and identify the variety of factors contributing to poor attendance. This should be followed up with evaluating what measures can be taken by faculty and the institution at large to support the students in helping them achieve success in the classroom.	Fall 2023	As deemed necessary by the Institutional Effectiveness department	An increase in % student learning outcome achieved and increased student success and retention rate.
1, 4	Promote general education certification in preparation for transfer to a four-year institution	Fall 2023	As deemed necessary by the Institutional Effectiveness department	Increase in enrollment and student interest in the degree and career pathways associated with the program

SECTION TWO: Human Resource Planning

I. Program Overview, Objectives, and Student Learning Outcomes

Description / Evaluation:

1. List the current staffing for the program include: full-time and part-time faculty positions, instructional assistants and classified staff

Full-time faculty (by subject and in alphabetical order)

Biology	Tiffany Baiocchi
Biology	Crystal Tobola
Chemistry	Yuting Lin
Mathematics	Jackson Ng
Mathematics	Noelle Eckley
Mathematics	Robert Schofield
Mathematics & Physics	Natalia McClellan

Part-time faculty (by subject and in alphabetical order)

Geology	Lynn Fuller
Math	Monica Benes
Math	Allison Beckwith

Instructional Assistants and classified Staff

Instructional Support Specialist II	Michael Blaschak

2. This section provides an opportunity for analysis and justification of projected staffing needs to support the program. Clerical support by the Office of Academic Services and work-study needs may be included.

Chemical Hygiene Officer

A chemical hygiene officer (on record) is required to help manage the chemical and biological waste around campus. To provide a safe learning environment for the students, the waste management is critical, and the lab safety should be following the OSHA regulation. The responsibility of this individual includes but not limited to making sure the SDS is up to date, ensuring that the chemical manage plan is followed, and ensuring that the waste disposal schedule is followed.

Stipend for writing Chemical Management Plan and Hazard Communication compliance

Currently there are no specific guidelines as to how the chemicals and hazards should be handled on campus. These plans are required to provide students with a safe learning environment as well as establishing clear guidelines for the employees to follow.

Full-time Geology Instructor

Currently the geology courses are instructed by an adjunct faculty. A full-time geology instructor is required as there are needs for physical science courses on campus as well as the other locations, especially to continue offering geology or physical science courses for the incarcerated population. The current courses offered by the college will be able to support a full load for an instructor and these courses are currently not offered or instructed by adjunct instructors.

Student Workers for Closed Captioning Pre-recorded videos

To better align the online courses (or hybrid courses) that uses pre—recorded videos for instruction (lecture or lab) with the CVC-OEI rubric, it is essential for instructors to ensure that the Canvas course created meets the accessibility requirements and have accurate closed captions. Currently, the service available uses auto captioning (Canvas Studio, DECT grant, Zoom Transcripts, and Youtube auto-generated captions) and the accuracy is of concern. The accuracy is exceptionally low for the sciences where special terminology is used.

At a rough estimate, it takes an instructor around 1 hour to edit the auto-generated captions of a 15-minute video. As it can be time-consuming for the instructors to caption all the videos made, this can be discouraging for the instructors to make their course fully accessible to meet the CVC-OEI rubric.

As a result, it is recommended to hire student workers (who may not be eligible for work study) selected by the instructor to help with the captioning. With this, the students selected by the instructor can caption the videos at their own time and work remotely. The work time can also be more flexible and outside of the academic year (for instance, during summer). This can also increase the recruitment of the students as most of the students who graduate after taking higher-level courses and can no longer be eligible as a work student.

With accurate captioning for the videos used, the accessibility of the course would meet the CVC-OEI guidelines and the students would be provided with a more equitable learning environment.

Work study needs

Both the chemistry and biology teaching labs benefit from having work study students to help the lab preparation. Most of the semesters in the past years the two departments have at least 1 work study to help with the preparation. However, with the captioning required as described above, it is necessary to increase the budget for each department on work studies so student workers can be hired to help with captioning the course material.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning and Human Resources Planning Forms as appropriate for any recommendations requiring institutional action.

1. A Chemical Hygiene Officer is needed to help manage the waste around campus. This position is required by OSHA and needs to be titled by the school officially (written into the job description.
2. Provide stipends for qualified personnel to write a Chemical Management Plan and a Hazard Communication Compliance
3. A full-time geology instructor
4. Hire student workers and extend work study budget to help with the captioning

II. Professional Development

Description / Evaluation:

1. If available, reference Flex Contracts for full-time faculty teaching in the program for each of the last two years. [Copies may be available in the Office of Instruction].

   Based on the Flex Contracts for the faculties in the program, most of the hours are dedicated to course evaluation and development. Some flex hours are claimed towards webinars and conferences related to online instruction as most instructions were switched online in the past two years.

2. Describe the professional development and professional activities of the program faculty/instructional assistants in addition to flex obligation relevant to program improvement that has occurred during the period under review. (Workshops, conferences, staff development, sabbatical leaves, work experience, etc.)

   All of the faculties have completed professional development and professional activities beyond the required flex hours in the past two year to adapt to the new teaching modality as the courses were switched online. The faculties worked closely with the instructional designer in learning the technology required as well as pedagogy in online instruction. Currently most of the instructors are proficient in using the online learning management system (Canvas) to support instruction. Instructors are evaluating their course and effectiveness of the instruction constantly and looking to provide accessible course content for the students.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning and Human Resources Planning Forms as appropriate for any recommendations requiring institutional action.

N/A

III. Student outcomes

Description / Evaluation:

Describe any results from assessment of learning outcomes that affect human resource planning

As the student learning outcomes as well as the student success rates are generally low in Math and physical science, it is critical that the college develop a robust, consistent, and readily available supporting system for the math program.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning and Human Resources Planning Forms as appropriate for any recommendations requiring institutional action.

1. Hiring of a Math Instructional Support Specialist I to help with coordinating the Math tutoring center, as well as act as a math tutor that is readily available for all levels of Math course. This individual would be providing tutoring for Math at all institutions and work with the students to support their needs.

IV. Prioritized Recommendation

Prioritized Recommendations for Implementation by Program Staff

List all recommendations made in Section Two that do not require institutional action (i.e. curriculum development) in order of program priority.

N/A

Prioritized Recommendations for Inclusion in the Planning Process

List all recommendations made in Section Two that should be included in Lassen College's planning and budgeting process. See Attachment C, Master Plan Overview, in the IPR handbook to determine where recommendations are best placed.

1. A Chemical Hygiene Officer is needed to help manage the waste around campus. This position is required by OSHA and needs to be titled by the school officially (written into the job description.
2. Provide stipends for qualified personnel to write a Chemical Management Plan and a Hazard Communication Compliance
3. A full-time geology instructor
4. Hire student workers and extend work study budget to help with the captioning
5. Hiring of a Math Instructional Support Specialist I to help with coordinating the Math tutoring center, as well as act as a math tutor that is readily available for all levels of Math course. This individual would be providing tutoring for Math at all institutions and work with the students to support their needs.

Prioritized Recommendations for Inclusion in Human Recourse Master Plan: The HRMP identifies and manages the administrative functions of recruitment, selection, evaluation, and professional development needs of the College to ensure a fully- staffed and highly functioning team of employees.

Natural Science and Mathematics, 2022

** Note: "Estimated Cost" includes calculated Total Cost of Ownership as described in Section I*

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost * (implementation & ongoing)	Expected Outcome
1, 2, 4	Hiring of a Math Instructional Support Specialist I to help with coordinating the Math tutoring center, as well as act as a math tutor that is readily available for all levels of Math course. This individual would be providing tutoring for Math at all institutions and work with the students to support their needs.	Starting Fall 2023	Annual Salary: 31,091 Annual Benefits: 21,600	The success rate and the %SLO achieved in all Math course increases to 80%

1, 2, 4	Hire student workers and extend work study budget to help with the captioning	Starting Fall 2023	400+ student labor hours (rough estimate for all chemistry and biology courses, this would vary based on the course and instructor)	Provide an equitable learning environment for all students and have the online courses meet the CVC-OEI rubric to increase student success and enrollment
1, 2, 4	Hire a full-time geology instructor	Starting Fall 2023	Annual Salary + Roll out cost estimate: 10,000	Provide a robust and up-to-date geology program for students, and instruct physical science courses face to face at the different institutions
3	Provide stipends for qualified personnel to write a Chemical Management Plan and a Hazard Communication Compliance	Starting Fall 2023	A one-time minimum of 60 hours paid at pro-rata rate	Establish a chemical and waste management plan for the entire campus
3	A Chemical Hygiene Officer is needed to help manage the waste around campus. This position is required by OSHA and needs to be titled by the school officially (written into the job description.	Starting Fall 2023	Unknown. This involves editing a job description or providing an annual stipend position to an individual	Establish a consistent, robust waste management system and follow through the protocols.
1, 2, 4	Hire a contractor for closed captioning	Starting Fall 2023	Hours of (Student) Labor required per course: 20-400 hours (Vary drastically depending on the instructor and material used for online course).	Provide students with accessible content to better understand the course material and a better learning experience

SECTION THREE: Facilities Planning

I. Facilities

Description / Evaluation:

1. Describe and evaluate the Lassen Community College facilities available to the program.

DI water filtration system

The DI water filtration system in the MS building has a service agreement with the DI water company. However, it was recently found (3/11/2022) that the service agreement hasn't been fulfilled since 2013 and LCC hasn't been paying the associated costs for the filtration system. Details is still being followed up by the facilities department. It would be beneficial to have under-sink DI water systems installed in lab-prep spaces MS129 and MS131, which would be safer and more efficient to use and access for maintenance.

Lab Chairs

In addition, the chairs in the geology, physics, and biology classrooms are outdated and uncomfortable (as students reflected inside the student surveys in Appendix III). Furthermore, several are malfunctioning (the backs are falling off which poses a safety hazard to students and faculty who utilize the room.

Cleaning up lab storage rooms

As most of the items listed in this IPR were not properly documented in the past 10+ years, the equipment is out of data and hard to estimate their lifetime (most equipment are for the science labs, and currently none of the full-time science faculties has been at LCC for more than 5 years). Various work requests have been submitted to facilities to help organize and clean out the science labs but so far there is no response for that. The instruction is limited by the equipment that is out of date as well as the lack of storage room for newly purchased equipment. A lot of the out of date (or broken) equipment are currently stored in the classrooms and storage room, and they are taking up the space for instruction to provide a better learning environment for the students. So far, the only success in the past 4 years is the chemical waste pick up that was done in 2019, which cleaned out the chemical waste that has been accumulating in the chemistry lab for more than 10 years.

Chemical and Biological Waste pickups

The biohazard waste is picked up at the end of every semester/year coordinated through facilities with no difficulty. Chemical waste pickup has happened once in the last few IPR cycles and is not set up on a regular schedule. Both waste pickups are on call services with Stericycle.

MS-121 and 122 Classroom Furniture

When the two classrooms are split into individual classrooms by adding the divider, the table and chair arrangements do not currently allow for adequate fire safety or ADA access.

2. Describe and evaluate additional facilities utilized off-campus by the program (attach any relevant rental agreements)

N/A

3. Describe any facilities needs identified by assessments of student learning outcomes

Study Area in MS building

The study area in the Math and science building has been used extensively by the students. As the student's feedback from regular meetings with the instructors, new chairs need to be purchased to

better encourage students to use the area as a study space to promote a good learning environment. A printer set up in this area would also be beneficial for students who need to print documents for math and science labs. Newer technological equipment in this space would also benefit the students. Furthermore, the rooms furniture is not a good fit for the space and limits the use of this space by larger numbers of students (causing safety concerns in addition to limitations on providing assistance to students).

4. Justify any proposed modifications or additions to existing facilities that would better serve the program planned for the next five years.

Classroom and Study Area Furniture

The lab chairs in the lab rooms of the MS building are old and uncomfortable for students to sit for long time periods. New chairs are needed for the classrooms as students on average spend at least 3-6 hours during the teaching labs inside the classrooms.

The tables in MS-121 and 122 needs to be replaced by smaller and narrower tables, for instance, 1.5 ft * 3 ft to allow adequate spacing for 24 students with appropriate walkways.

Regular Waste Pickups

The waste pickup for the biology and chemistry labs are with an on-call service with Stericycle. It is critical to set up a regular waste pick up schedule to maintain a safe learning environment for the students, as well as a better use of the space available.

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Facilities Planning, and Technology Planning Forms as appropriate for any recommendations requiring institutional action.

1. Replace the chairs and repair some of the large tables in the two lecture rooms (MS- 121-& MS-122)
2. New chairs for the geology, physics, and biology Laboratory classrooms
3. New chairs for the MS building study area
4. Aid from the facilities department to clear out the outdated/unused equipment and items from the science lab
5. A regularly scheduled chemical waste pick up every 2 years
6. Purchase and installation of under-sink DI water systems

II. Prioritized Recommendations

Prioritized Recommendations for Implementation by Program Staff

List all recommendations made in Section Three that do not require institutional action (i.e. curriculum development) in order of program priority.

N/A

Prioritized Recommendations for Inclusion in the Planning Process

List all recommendations made in Section Three that should be included in Lassen College's planning and budgeting process. See Attachment C, Master Plan Overview, in the IPR handbook to determine where recommendations are best placed.

1. Replace the chairs and repair some of the large tables in the two lecture rooms (MS-121 & MS-122)
2. New chairs for the geology, physics, and biology Laboratory classrooms
3. New chairs for the MS building study area

4. Aid from the facilities department to clear out the outdated/unused equipment and items from the science lab
5. A regularly scheduled chemical waste pick up every 2 years
6. Purchase and installation of under-sink DI water system

Prioritized Recommendations for Inclusion in the Facilities Master Plan: The FMP addresses the physical infrastructure, facility, and maintenance needs of the campus.

Natural Science and Mathematics, 2022

** Note: "Estimated Cost" includes calculated Total Cost of Ownership as described in Section I*

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost * (implementation & ongoing)	Expected Outcome
1, 2, 3, 4	24 New chairs for the geology, physics, and biology classrooms	Fall 2023	Implementation: 25,000 (4 classrooms * 24 seats, 250 a piece) Ongoing: 1000 over 4 years	The students would have a better learning environment
1, 2, 3, 4	12 New chairs for the MS building study area	Fall 2023	Implementation: 2,000 (12 chairs) Ongoing: 1,000 over 4 years	The MS building study area would be used more often by the student to promote a better learning environment
1, 2, 3, 4	24 New tables in the two lecture rooms (MS- 121-& MS-122)	Fall 2023	Implementation: 4,800 (2 classrooms * 12 tables * 200 a piece) Ongoing: 1,000 over 4 years	The students would have a better learning environment
1, 3	Aid from the facilities department to clear out the outdated/unused equipment and items from the science lab	Fall 2023	Hours of Labor required: 20 hours	All the science classrooms and storage rooms would have more efficient use of space
1, 3	A regularly scheduled chemical and biological waste pick up	Fall 2023	16,000 over 4 years	The chemical and biological waste generated from teaching labs would be regularly picked up to establish a safer learning and working environment

3	Installation of under-sink DI water system in MS117 and MS129	Fall 2023	2000 for purchase and 4000 over 4 years (assuming 500$ maintenance for each unit each year)	The biology lab would have an independent DI water system readily usable

SECTION FOUR: Technology Planning

I. Technology

Description / Evaluation:

1. Describe and evaluate technology and technology support provided for instruction and instructional support.

   There are 24 Dell Latitude E5550 laptops that were purchased in December 2015, and currently around 15 are still functioning (the laptops were sent to the IT department for repair and never returned). These laptops are currently used heavily by both chemistry and physics teaching labs. Both labs use PASCO software (licensing required) to conduct teaching labs, and the chemistry lab uses Spectrometry software in addition to PASCO. A PASCO license was purchased previously and currently the software is functioning on the laptops as expected. The Spectrometry software was installed on 5 of the laptops and was free at the time of installation. The desktop version Microsoft Word and Excel are used by students to conduct data analysis during class, and the MS laptops currently have Microsoft 365 suite installed.

   In addition, as a lot of the courses are relying on technology to deliver the course materials, students need to have a place where they can access their course materials. The current desktops in the MS study area are heavily used but very outdated. New desktop computers are required in order to help students with their learning.

2. Describe any technology and technology support needs identified by assessment of student learning outcomes.

   As the laptops and desktops require constant maintenance, an on-campus IT technician is required. There have been various incidents where the laptops were crushed in the middle of lab time and no immediate support was received. The science department employee was unable to troubleshoot the laptops as they require administrative rights to undergo any updates or changes.

   Functional laptops also have usability issues, as even the best working laptops currently take at least 20 minutes to turn on and be functioning. Furthermore, it is a common occurrence where a student tries to turn on a laptop and after 20 minutes have elapsed, they realize that the computer is not working for unknown and various reasons. Such technological difficulties diminish the educational experience for the students, leading to frustrations and inability to get work done in a timely manner. This has occurred to the extent that there have been instances where students were unable to complete their lab assignments during the allotted lab time (purely by fault of the technology). This has meant that students have had to return to the classroom outside of allotted class time impeding on their ability to time manage and allocate their time appropriately for the material. Such issues can be avoided, and the student educational experience greatly improved by providing the science laboratories with updated (new) technological equipment. This also highlights the need for semi-regular updates

Planning Agenda:

List recommendations and necessary actions necessitated by the above evaluation. Complete Academic Planning, Facilities Planning, Technology Planning and Human Resource Planning Forms as appropriate for any recommendations requiring institutional action.

1. New laptops for students to use during the teaching labs and the cart for it (A set is needed for both Chemistry and Biology)
2. New desktops for students in the MS building study area
3. Headsets for students to watch pre-recorded video on campus
4. Stylus pen for the 2-in-1 laptops

5. Labster Licensing for science labs
6. Consistent IT support from the IT department to maintain the laptops
7. Equatio Licensing for Canvas
8. Continue purchase of the Proctorio Canvas tool

II. Prioritized Recommendations

Prioritized Recommendations for Implementation by Program Staff

List all recommendations made in Section Four that do not require institutional action (i.e. curriculum development) in order of program priority.

N/A

Prioritized Recommendations for Inclusion in the Planning Process

List all recommendations made in Section Four that should be included in Lassen College's planning and budgeting process. See Attachment C, Master Plan Overview, in the IPR handbook to determine where recommendations are best placed.

1. New laptops for students to use during the teaching labs and the cart for it (A set is needed for both Chemistry and Biology)
2. New desktops for students in the MS building study area
3. Headsets for students to watch pre-recorded video on campus
4. Stylus pen for the 2-in-1 laptops
5. Labster Licensing for science labs
6. Consistent IT support from the IT department to maintain the laptops
7. Add a second small copier for student use in the central area of Math-Science building

Prioritized Recommendations for Inclusion in the Facilities Master Plan: The FMP addresses the physical infrastructure, facility, and maintenance needs of the campus.

Natural Science and Mathematics, 2022

** Note: "Estimated Cost" includes calculated Total Cost of Ownership as described in Section I*

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost * (implementation & ongoing)	Expected Outcome
1, 2, 3, 4	Purchase 50 2-in-1 Dell laptops and 2 laptop carts	Fall 2023	Implementation: 51,000 (1,000 for each laptop + 500 for each cart) Ongoing maintenance: 1,000 a year	The students would be able to use the technology provided by the school in a classroom setting to complete their lab work, increasing student success and retention in science courses.
1, 3	Consistent IT support from the IT department to maintain the laptops	Fall 2023	Hours of Labor required: 20	Readily available technology support for classroom technologies

1, 2, 3, 4	Purchase 5 desktop computers	Fall 2023	Implementation: 5,000 Ongoing maintenance: 1,000 a year	Students would increase their use of the MS building study area to improve success and retention rates in Math and science courses.
1, 2, 4	Purchase Labster Licensing for science labs	Fall 2023	Ongoing: 4,000 a year (12.50 per license for each student)	Increase student success and retention by providing additional resources for the students to learn science concepts
1, 2, 4	Purchase Proctorio Licensing for online courses	Fall 2022	Ongoing: 23,000 a year	Increase the quality of the online course and better assess the student's learning progress
2, 3, 4	Add a second small copier for student use in the central area of Math-Science building	Fall 2023	Implementation: 100 Ongoing maintenance: 400 a semester	Provide students with sufficient resource to increase success rates
1, 2, 4	Purchase 50 Headsets	Fall 2023	Implementation: 200 Ongoing maintenance: 50 a year	Allow the students to use the study area and classrooms to complete assigned work and increase success and retention rate
1, 2, 4	Purchase 50 Stylus pen for the 2-in-1 laptops (if new laptops were purchased)	Fall 2023	Implementation: 1,500 (30 each) Ongoing maintenance: 100 a year	Provide up-to-date instructional resources to better student's learning environment, and increase the success and retention rates in science
1, 2, 4	Purchase Equatio Canvas Tool licensing	Fall 2022	Implementation: 2735 (12-month licensing)	Provide accessible tools for math equations in Canvas to increase accessibility of the online courses

Attachment A

Appendix I. Data Tables

Table 1. LCC Strategic Goals Assessment

Learning Outcomes	Assessment Method	Total Assessed	Total Achieved	% Achieved
Totals		46,896	37,412	79.9%
SG 1	Institutional Effectiveness: Provide the governance, leadership, integrated planning and accountability structures, and processes to effectively support an inclusive learning envi-	9,138	7,451	81.5%
SG 2	Learning Opportunities: Provide an array of rigorous academic programs delivered via a variety of modalities that promote student equity and learning while meeting the	12,670	10,153	80.1%
SG 3	Resource Management: Manage human, physical, technological and financial resources to sustain fiscal stability and to effectively support the learning environment.	10,090	7,964	78.9%
SG 4	Student Success: Provide a college environment that reaches out to and supports students, minimizes barriers, and increases opportunity and success through access and	14,998	11,844	79.0%

Table 2. Program Student Learning Outcomes (PSLOs) Assessment

Learning Outcomes	Assessment Method	Total Assessed	Total Achieved	% Achieved
Totals		12,534	10,337	69.9%
BIOL.AS-T_PSLO1	Apply the scientific method by stating a question; researching the topic; determining appropriate tests; performing tests; collecting, analyzing, and presenting data; and finally	85	71	83.5%
BIOL.AS-T_PSLO2	Apply critical thinking to the examination of the principles of biology, chemistry, and physics using proper laboratory techniques and procedures.	27	27	100.0%
BIOL.AS-T_PSLO3	Demonstrate a basic understanding of the language, laws, theories and processes that are essential to the understanding of the structure of matter and how the structure	74	56	75.7%
BIOL.AS-T_PSLO4	Describe the structure and function of molecular and cellular components and explain how they interact in a living cell.	0	0	0.0%
BIOL.AS-T_PSLO5	Describe how cells interact to develop tissues and organs and how these contribute to a functional organism	0	0	0.0%
BIOL.AS-T_PSLO6	Demonstrate an understanding of the mechanisms driving evolution and describe similarities and differences of the major taxonomic groups.	3	3	100.0%
BIOL.AS-T_PSLO7	Describe how organisms interact with one another, and to their environment and are able to explain interactions at the population and community levels.	0	0	0.0%
NAT.SC.GS.AA_PSLO1	Demonstrate an understanding of the basic methodologies of science.	1,047	876	83.7%
NAT.SC.GS.AA_PSLO2	Examine the influence that the acquisition of scientific knowledge has on the development of the world's civilizations.	776	671	86.5%
NAT.SC.GS.AA_PSLO3	Demonstrate a basic understand of the language, laws, theories, and processes that are fundamental to anthropology, astronomy, biology, chemistry meteorology, geology,	641	537	83.8%
NAT.SC.US.AA_PSLO1	Demonstrate an understanding of the basic methodologies of science.	1,611	1,344	83.4%
NAT.SC.US.AA_PSLO2	Examine the influence that the acquisition of scientific knowledge has on the development of the world's civilizations.	1,163	977	84.0%
NAT.SC.US.AA_PSLO3	Demonstrate a basic understand of the language, laws, theories, and processes that are fundamental to anthropology, astronomy, biology, chemistry meteorology, geology,	1,173	970	82.7%
NUTDIET.AS-T_PSLO1	Analyze and evaluate nutritional information, lifestyle, and special needs to make recommendations for adequate and balanced diet as well as to make recommendations for di-	1,048	824	78.6%
NUTDIET.AS-T_PSLO2	Use the scientific method to develop and conduct laboratory experiments utilizing accepted laboratory practices	718	604	84.1%
NUTDIET.AS-T_PSLO3	Identify, describe, and investigate the influence of environmental and culture on the development of individual behavior as it relates to nutrition and dietetics	2,019	1,674	82.9%
NUTDIET.AS-T_PSLO4	Display skills and knowledge necessary to continue study at a California State University in preparation for certification and a career as registered dietician	2,149	1,703	79.2%

Table 3. Institutional Student Learning Outcomes (ISLOs) Assessment

Learning Outcomes	Assessment Method	Total Assessed	Total Achieved	% Achieved
Totals		17,578	14,033	80.2%
ISLO1	Communication: Ability to listen and read with comprehension and the ability to write and speak effectively.	2,580	2,189	84.8%
ISLO2	Critical Thinking: Ability to analyze a situation, identify and research a problem, propose a solution or desired outcome, implement a plan to address the problem, evaluate	6,558	5,262	80.2%
ISLO3	Lifelong Learning: Ability to engage in independent acquisition of knowledge; ability to access information including use of current technology; ability to use the internet and/or	4,908	3,880	79.1%
ISLO4	Personal/Interpersonal Responsibility: Ability to develop and apply strategies to set realistic goals for personal, educational, career, and community development; ability to ap-	3,532	2,702	76.5%

Table 4. General Education Student Learning Outcomes (GESLOs) Assessment

Learning Outcomes	Assessment Method	Total Assessed	Total Achieved	% Achieved
Totals		19,108	15,519	84.1%
GESLO 1	Understand and apply methods of inquiry for a variety of disciplines including the scientific method for scientific inquiry and appropriate methods for social and behavior sci-	4,591	3,615	78.7%
GESLO 2	Explain and analyze relationships between science and other human activities.	2,450	2,061	84.1%
GESLO 3	Apply knowledge of the ways people act and have acted in response to their societies to express an appreciation for how diverse societies and social subgroups operate to un-	1,112	971	87.3%
GESLO 4	Understand ways in which people throughout the ages and in Western and non-Western cultures have responded to themselves and the world around them in artistic and cul-	43	42	97.7%
GESLO 5	Engage in verbal communication by participating in discussions, debates, and oral presentations utilizing proper rhetorical perspective, reasoning and advocacy, organiza-	2,249	1,768	78.6%
GESLO 6	Compose effective written communications and essays with correct grammar, spelling, punctuation and appropriate language, style and format utilizing academically ac-	2,264	1,926	85.1%
GESLO 7	Analyze, evaluate and explain theories, concepts and skills within varied disciplines using inductive and deductive processes and quantitative reasoning and application.	5,252	4,201	80.0%
GESLO 8	Demonstrate appreciation of themselves as living organisms through their choices for physical health, activities, stress management, relationships to the social and physical	1,147	935	81.5%

Table 5. Number of Degrees and Certificates Awarded by Academic Year

Academic Year	Award	Award Count
Totals		71
2017	AA General Studies: Emphasis in Natural Science	5
2017	AA University Studies: Emphasis in Natural Science-CSU	9
2017	AA University Studies: Emphasis in Natural Science-IGETC	5
2017	AS Biology for Transfer IGETC	1
2017	AS Nutrition and Dietetics for Transfer-CSU	1
2018	AA General Studies: Emphasis in Natural Science	8
2018	AS University Studies: Mathematics/Physical Science	1
2018	AA University Studies: Emphasis in Natural Science-CSU	15
2018	AS Biology for Transfer CSU	1
2018	AA University Studies: Emphasis in Natural Science-IGETC	2
2018	AS Nutrition and Dietetics for Transfer-CSU	2
2019	AA General Studies: Emphasis in Natural Science	3
2019	AA University Studies: Emphasis in Natural Science-CSU	8
2019	AA University Studies: Emphasis in Natural Science-IGETC	2
2019	AS Nutrition and Dietetics for Transfer-CSU	1
2020	AA General Studies: Emphasis in Natural Science	1
2020	AA University Studies: Emphasis in Natural Science-CSU	4
2020	AS Biology for Transfer CSU	1
2020	AA University Studies: Emphasis in Natural Science-IGETC	1

Table 6. Number of Degrees and Certificates Awarded Filter by Gender

	Academic Year			
Gender / Award Type	2017	2018	2019	2020
Female	**13**	**16**	**10**	**6**
AA Degree	11	13	10	5
AS Degree for Transfer	2	3	-	1
Male	**8**	**13**	**4**	**1**
AS Degree	-	1	-	-
AA Degree	8	12	3	1
AS Degree for Transfer	-	-	1	-

Table 7-1. Number of Degrees and Certificates Awarded Filter by Ethnicity (8)

Award Type / Ethnicity	Academic Year 2017	2018	2019	2020
AA	**19**	**25**	**13**	**6**
White	16	12	6	5
Hispanic	1	7	2	1
Two or More Races	2	1	2	-
Unknown/Non-Respondent	-	4	-	-
Black or African American	-	1	1	-
American Indian/Alaskan	-	-	1	-
Asian	-	-	1	-
AS	**-**	**1**	**-**	**-**
White	-	1	-	-
AS-T	**2**	**3**	**1**	**1**
White	1	1	-	1
Hispanic	-	1	-	-
Two or More Races	1	-	-	-
Unknown/Non-Respondent	-	1	-	-
American Indian/Alaskan	-	-	1	-

Table 7-2. Head count by Ethnicity and Academic Year (for the entire campus)

Ethnicity	Academic Year / Semester	2017 FA	2017 SU	2017 SP	2018 FA	2018 SU	2018 SP	2019 FA	2019 SU	2019 SP	2020 FA	2020 SU	2020 SP
Unknown/Non-Respondent		36	16	37	33	16	44	77	52	65	57	24	56
White		1022	564	1043	1026	610	1099	925	612	885	751	434	837
Hispanic		706	406	830	840	479	892	781	460	808	539	390	571
Pacific Islander		33	16	27	29	20	29	13	9	15	19	5	12
American Indian/Alaskan		60	32	55	56	27	54	59	34	54	43	22	47
Black or African American		436	248	483	472	275	499	419	269	401	272	237	261
Asian		74	49	101	106	77	124	107	86	98	81	65	67
Two or More Races		86	54	91	106	51	124	110	68	103	86	44	72

Table 8. Number of Degrees and Certificates Awarded Filter by Residency Status

Residency / Award Type	Academic Year 2017	2018	2019	2020
AB540 Resident	**2**	**-**	**1**	**1**
AA Degree	2	-	1	-
AS Degree for Transfer	-	-	-	1
California Resident	**20**	**23**	**13**	**6**
AS Degree	-	1	-	-
AA Degree	18	20	12	5
AS Degree for Transfer	2	2	1	1
Foreign Country Resident	**1**	**4**	**-**	**1**
AA Degree	1	3	-	1
AS Degree for Transfer	-	1	-	-
Out of State Resident	**-**	**4**	**1**	**1**
AA Degree	-	4	1	1

Table 9. Number of Degrees and Certificates Awarded Filter by Veteran / Military Dependent Status

Veteran / Award Type	Academic Year: 2017	2018	2019	2020
-	**21**	**26**	**12**	**7**
AS Degree	-	1	-	-
AA Degree	19	22	11	6
AS Degree for Transfer	2	3	1	1
Parent/Guard Veteran	**-**	**1**	**2**	**-**
AA Degree	-	1	2	-
Military Dependent	**-**	**2**	**-**	**-**
AA Degree	-	2	-	-

Table 10. Success and Retention Rates by Academic Year

Academic Year	Census Enrollment	Success Rate	Retention Rate
Totals	**6,654**	**62%**	**84%**
2020	1,431	62%	80%
2019	1,814	68%	86%
2018	1,650	58%	84%
2017	1,759	60%	86%

Table 11. Success Rates by Course

Course	Academic Year: 2017 FA	2017 SU	2017 SP	2018 FA	2018 SU	2018 SP	2019 FA	2019 SU	2019 SP	2020 FA	2020 SU	2020 SP
ANTH-1	65.7%	59.3%	67.9%	50.0%	73.9%	66.2%	69.1%	80.8%	74.7%	59.4%	86.9%	76.6%
MATH-101	45.0%	36.0%	27.3%	83.3%	20.0%	33.3%	-	37.5%	-	-	-	-
MATH-102	41.2%	64.5%	46.3%	42.2%	41.4%	66.7%	-	60.9%	-	-	-	-
MATH-155	-	-	-	-	-	-	-	-	-	-	-	-
MATH-156	-	-	-	-	-	-	-	-	-	-	-	-
CHEM-1A	78.6%	-	-	58.8%	-	-	78.3%	-	-	36.7%	-	-
CHEM-1B	-	-	100.0%	-	-	33.3%	-	-	100.0%	-	-	100.0%
CHEM-45	85.7%	-	100.0%	66.7%	-	42.9%	76.5%	-	66.7%	30.0%	-	38.9%
CHEM-45A	-	-	-	-	-	-	85.7%	-	100.0%	0.0%	-	55.6%
CHEM-8	-	-	100.0%	-	-	60.0%	-	-	71.4%	-	-	66.7%
BIOL-1	-	-	100.0%	-	-	60.0%	-	-	-	-	-	-
BIOL-10	-	-	-	-	-	94.7%	-	-	91.4%	25.0%	-	-
BIOL-20	72.7%	-	42.9%	82.4%	-	-	81.5%	-	-	57.1%	-	-
BIOL-25	47.2%	-	-	54.7%	-	-	59.3%	87.0%	-	60.7%	76.5%	-
BIOL-26	-	-	91.2%	-	-	89.7%	-	90.0%	87.5%	-	93.1%	83.3%
BIOL-32	65.4%	-	-	-	-	87.9%	-	-	-	-	-	-
BIOL-32L	90.5%	-	91.4%	92.6%	-	-	91.7%	-	76.2%	77.8%	-	77.3%
BIOL-4	-	-	85.7%	-	-	-	-	-	100.0%	-	-	75.0%
MATH-103	53.3%	59.6%	59.7%	44.9%	38.3%	51.6%	-	56.3%	-	-	-	-
MATH-107	-	-	-	-	-	-	66.7%	-	-	-	-	-
MATH-108	-	-	-	-	-	-	0.0%	-	75.0%	-	-	-
MATH-140	-	-	-	-	-	-	68.2%	-	61.1%	-	-	-
MATH-1A	71.4%	-	-	81.8%	-	-	71.4%	-	-	40.0%	-	-
MATH-1B	-	-	71.4%	-	-	100.0%	-	-	100.0%	-	-	100.0%
MATH-40	58.8%	47.2%	62.7%	63.0%	35.5%	56.6%	62.3%	57.5%	66.0%	43.3%	53.6%	65.3%
MATH-60	45.7%	71.0%	60.6%	42.1%	70.0%	64.6%	52.1%	56.3%	53.0%	57.6%	69.2%	60.7%
MATH-7	54.5%	-	-	33.3%	-	-	37.5%	-	-	33.3%	-	-
MATH-8	-	-	63.2%	-	-	52.4%	50.0%	-	72.7%	-	-	16.7%
GEOL-1	85.7%	-	-	76.5%	-	-	95.0%	-	-	52.6%	-	-
GEOL-5	-	-	77.8%	-	-	59.3%	-	-	92.9%	-	-	71.4%
PHSC-1	64.5%	64.0%	57.6%	61.3%	78.3%	78.7%	75.0%	57.9%	75.0%	64.5%	75.0%	73.1%
PHYS-2A	63.2%	-	-	-	-	-	66.7%	-	-	-	-	-
PHYS-2B	-	-	77.8%	-	-	-	-	-	75.0%	-	-	-
MATH-164	-	-	-	-	-	-	-	-	-	67.0%	0.0%	69.5%
MATH-167	-	-	-	-	-	-	-	-	-	57.1%	-	-
MATH-168	-	-	-	-	-	-	-	-	-	-	-	16.7%
CHEM-55	-	-	75.0%	-	-	-	-	-	-	-	-	-

Table 12. Success Rates by Modality

Modality	Academic Year: 2017	2018	2019	2020
Face to Face	61.7%	58.4%	72.6%	43.3%
Correspondence	57.1%	52.2%	56.7%	61.6%
Internet	61.8%	63.1%	67.2%	65.4%
Hybrid	53.6%	-	85.1%	-

Table 13. Success Rates by Student Gender

Gender	Academic Year: 2017 FA	2017 SU	2017 SP	2018 FA	2018 SU	2018 SP	2019 FA	2019 SU	2019 SP	2020 FA	2020 SU	2020 SP
-	-	-	-	0.0%	-	-	-	100.0%	-	-	-	-
Female	56.9%	61.1%	67.8%	54.4%	59.1%	62.0%	67.0%	70.1%	73.4%	63.8%	76.1%	69.7%
Male	56.2%	56.1%	62.7%	53.0%	53.8%	65.9%	65.6%	65.7%	67.8%	49.0%	71.5%	63.9%

Table 14. Success Rates by Ethnicity (8)

Success Rates by Ethnicity (8)

Ethnicity	Academic Year / Semester	2017			2018			2019			2020		
		FA	SU	SP	FA	SU	SP	FA	SU	SP	FA	SU	SP
Unknown/Non-Respondent		75.0%	100.0%	77.8%	54.5%	0.0%	90.0%	79.5%	66.7%	70.0%	50.0%	80.0%	100.0%
White		59.9%	57.6%	66.0%	57.4%	61.5%	67.8%	66.7%	70.1%	73.0%	59.9%	78.9%	66.2%
Hispanic		54.2%	60.3%	68.8%	54.2%	51.7%	63.9%	68.5%	63.4%	70.0%	52.2%	70.8%	59.3%
Pacific Islander		42.9%	50.0%	68.8%	40.0%	100.0%	66.7%	42.9%	-	100.0%	85.7%	-	33.3%
American Indian/Alaskan		37.5%	44.4%	61.5%	32.0%	40.0%	53.3%	58.3%	83.3%	81.0%	66.7%	0.0%	90.0%
Black or African American		53.5%	51.6%	53.7%	43.8%	44.2%	56.3%	59.3%	64.6%	58.8%	44.0%	62.5%	66.7%
Asian		59.1%	75.0%	77.8%	73.3%	66.7%	66.7%	63.0%	81.8%	73.1%	52.9%	90.0%	70.8%
Two or More Races		44.7%	54.5%	57.4%	38.5%	44.4%	47.2%	64.3%	55.6%	58.6%	42.5%	76.5%	82.1%

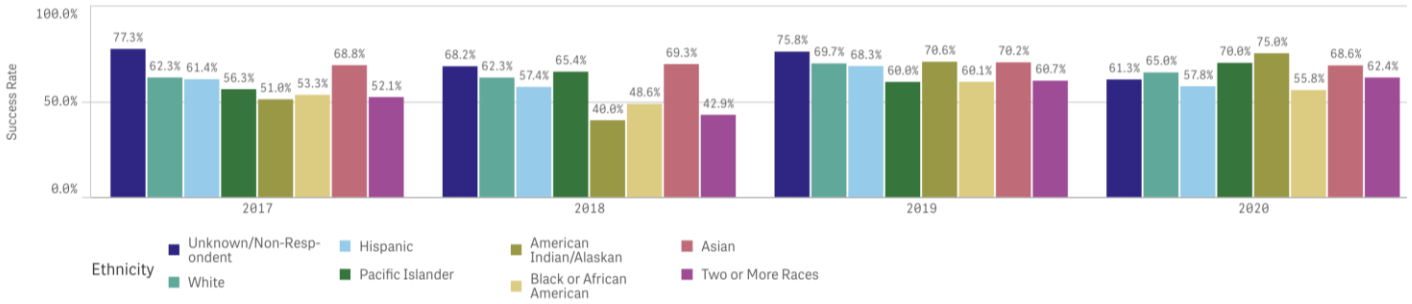


Table 15. Success Rates by CalWorks Eligibility

CalWorks	Academic Year 2017	2018	2019	2020
CalWorks Eligible	65.4%	25.0%	81.8%	86.7%

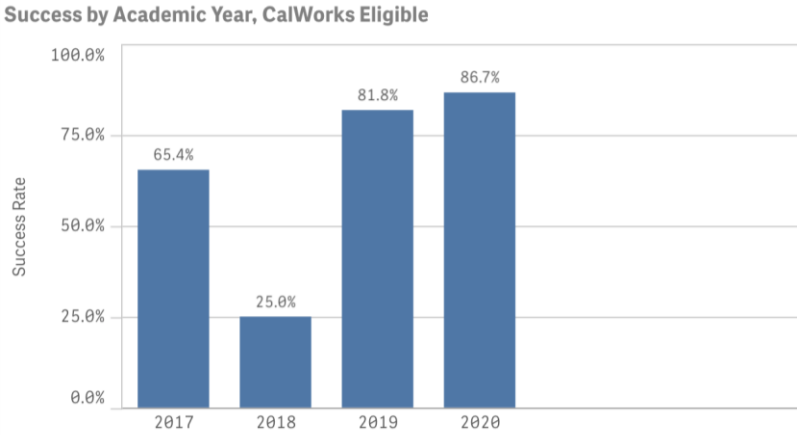


Table 16. Success Rates by Disability Flagged

Disabled	Academic Year 2017	2018	2019	2020
Disabled	51.7%	45.5%	71.1%	61.0%

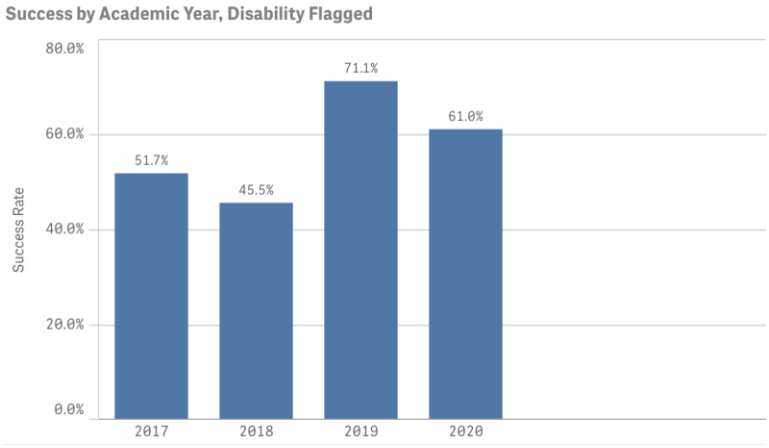


Table 17. Success Rates by EOPS Eligibility

EOPS	Academic Year 2017	2018	2019	2020
EOPS Eligible	56.4%	56.9%	73.7%	69.7%

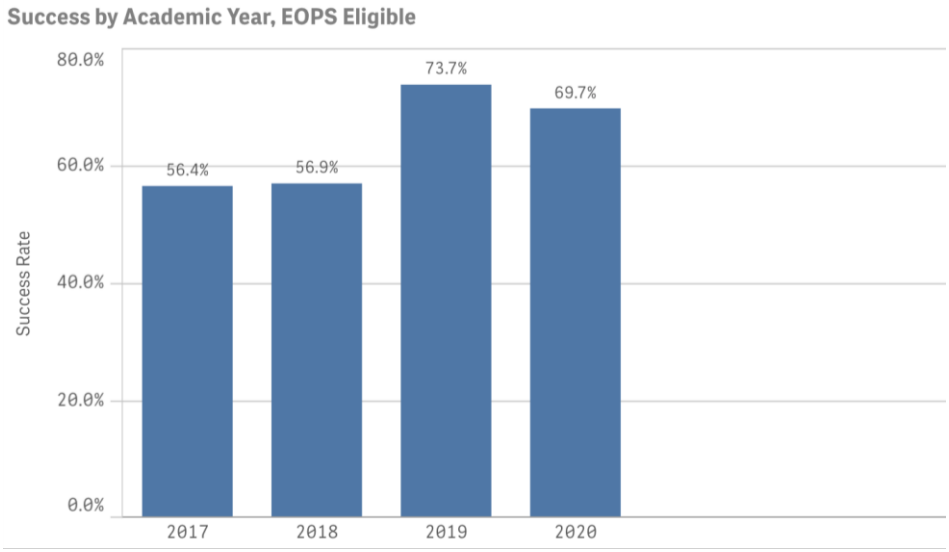


Table 18. Success Rates by Veteran / Military Dependent Status

Veteran Status, ...	Academic Year 2017	2018	2019	2020
-	60.5%	57.6%	67.7%	61.7%
Parent/Guard Veteran	67.6%	76.4%	63.0%	54.9%
Veteran	100.0%	66.7%	92.9%	66.7%
Veteran Discharged over 1 Year	48.6%	65.5%	63.6%	75.0%
Veteran Discharged in Last Year	47.1%	28.6%	63.4%	66.7%
Military Dependent	50.0%	87.5%	50.0%	100.0%

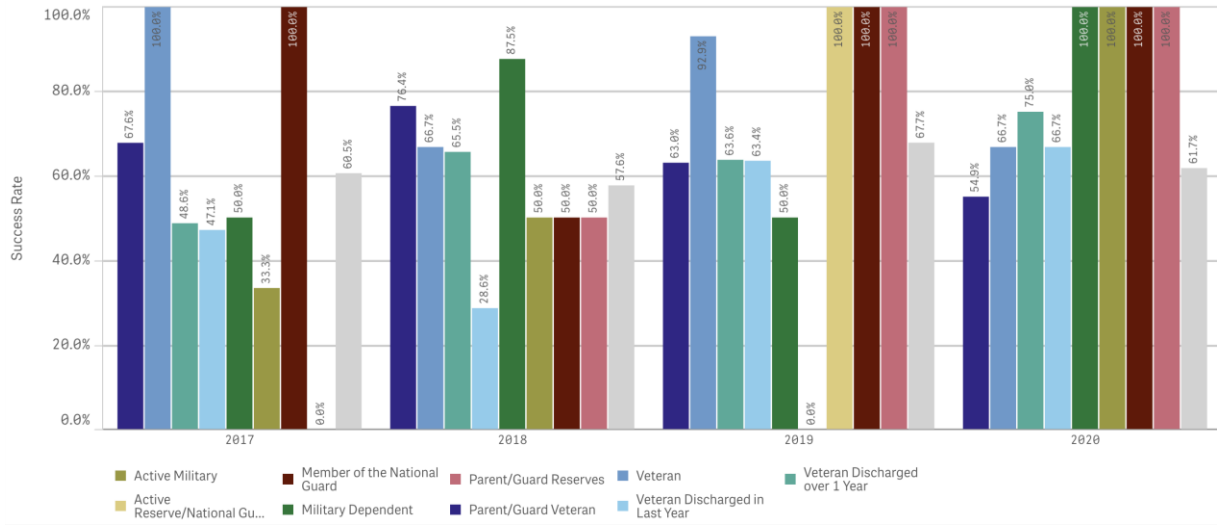


Table 19. Success Rates by Residency Status

Residency Status	Academic Year 2017	2018	2019	2020
Unreported Residency Info	-	-	0.0%	-
California Resident	59.8%	56.9%	67.4%	61.8%
Foreign Country Resident	70.8%	90.0%	82.8%	75.0%
Out of State Resident	59.2%	62.7%	67.5%	62.0%
AB540 Resident	68.8%	52.0%	72.3%	57.4%
Veteran Access Choice Acnt Act	-	100.0%	50.0%	-

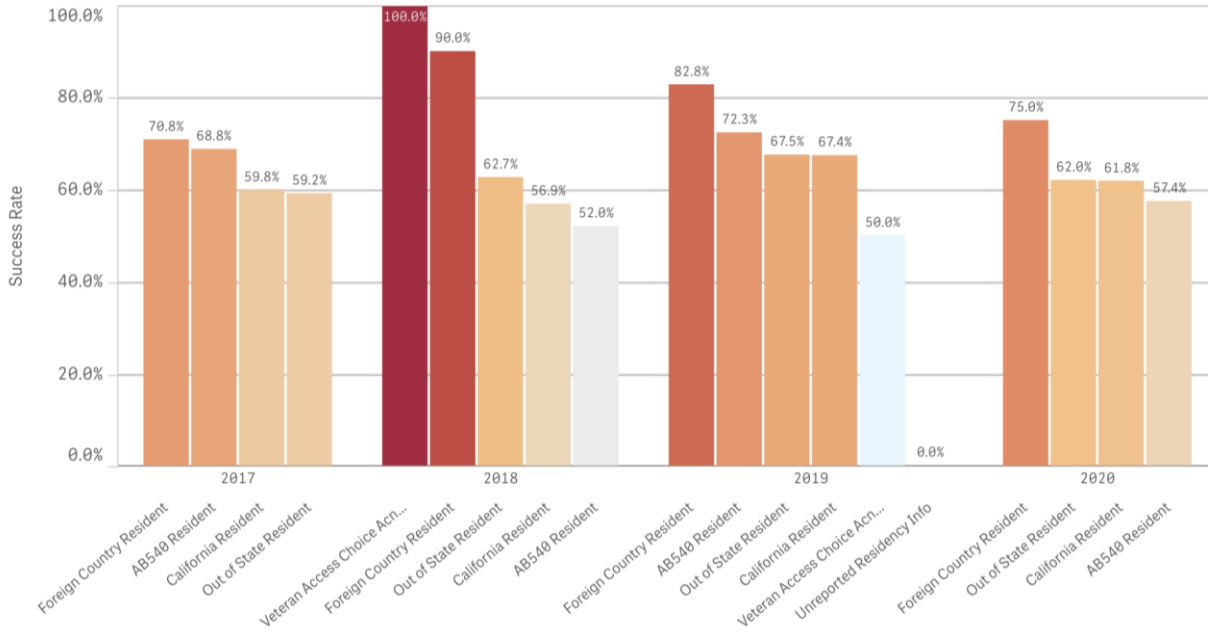


Table 20. Success Rates by Student Type

Student Type	Academic Year 2017 FA	2017 SU	2017 SP	2018 FA	2018 SU	2018 SP	2019 FA	2019 SU	2019 SP	2020 FA	2020 SU	2020 SP
Regular	55.6%	64.3%	66.5%	52.8%	62.4%	65.2%	66.8%	69.4%	71.3%	60.2%	77.6%	66.2%
Incarcerated	57.0%	52.7%	60.4%	54.6%	47.0%	61.4%	65.7%	62.8%	67.3%	46.5%	68.6%	64.8%
Dual/Concurrent Enrollment	82.4%	20.0%	72.7%	60.0%	66.7%	81.8%	62.5%	100.0%	85.7%	62.5%	87.5%	84.2%

Table 21. Success Rates by Location

Location	Academic Year: 2017 FA	2017 SU	2017 SP	2018 FA	2018 SU	2018 SP	2019 FA	2019 SU	2019 SP	2020 FA	2020 SU	2020 SP
Main Campus	55.1%	-	69.9%	51.5%	-	61.6%	64.4%	-	72.2%	-	-	-
Hybrid	-	-	53.6%	-	-	-	91.7%	88.4%	78.7%	-	-	-
Incarcerated Correspondence Ed	57.0%	52.7%	59.7%	50.2%	47.0%	57.6%	54.0%	62.8%	54.8%	54.3%	68.6%	67.0%
Cdcr/Fci F2f Education	-	-	-	80.0%	-	83.3%	80.6%	-	84.1%	28.7%	-	61.4%
Internet	59.3%	62.4%	63.4%	55.6%	62.6%	70.1%	67.7%	65.3%	68.1%	60.2%	78.3%	67.3%

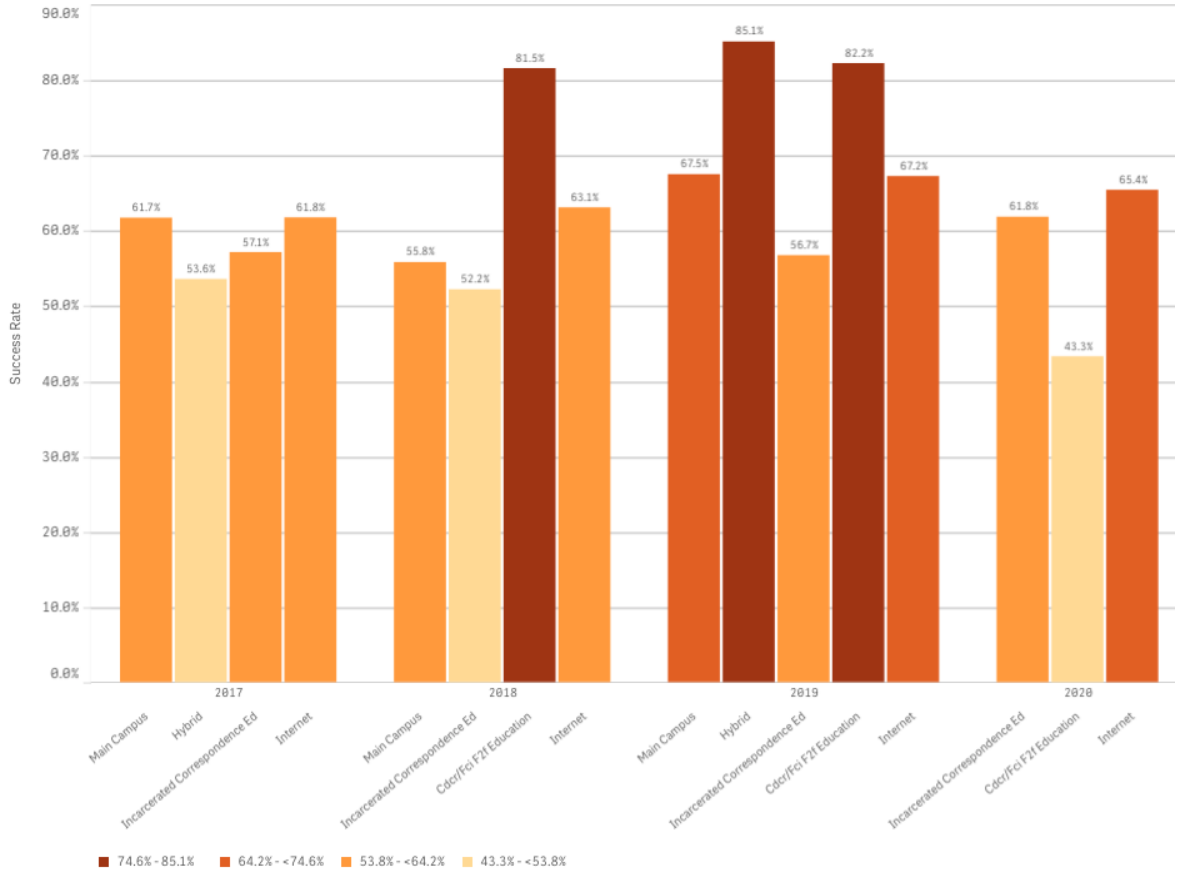


Table 22. Retention Rates by Course

Course	Academic Year / Semester	2017			2018			2019			2020		
		FA	SU	SP	FA	SU	SP	FA	SU	SP	FA	SU	SP
ANTH-1		80.6%	88.9%	85.8%	78.1%	87.0%	85.1%	91.4%	95.9%	86.7%	82.3%	96.7%	93.8%
MATH-101		60.0%	96.0%	54.5%	83.3%	100.0%	66.7%	-	75.0%	-	-	-	-
MATH-102		74.1%	93.5%	82.5%	67.2%	82.8%	90.5%	-	95.7%	-	-	-	-
MATH-155		-	-	-	-	-	-	-	-	-	-	-	-
MATH-156		-	-	-	-	-	-	-	-	-	-	-	-
CHEM-1A		100.0%	-	-	79.4%	-	-	91.3%	-	-	63.3%	-	-
CHEM-1B		-	-	100.0%	-	-	50.0%	-	-	100.0%	-	-	100.0%
CHEM-45		100.0%	-	100.0%	86.7%	-	90.5%	94.1%	-	88.9%	50.0%	-	61.1%
CHEM-45A		-	-	-	-	-	-	85.7%	-	100.0%	40.0%	-	55.6%
CHEM-8		-	-	100.0%	-	-	90.0%	-	-	78.6%	-	-	66.7%
BIOL-1		-	-	100.0%	-	-	100.0%	-	-	-	-	-	-
BIOL-10		-	-	-	-	-	100.0%	-	-	97.1%	50.0%	-	-
BIOL-20		81.8%	-	85.7%	88.2%	-	-	96.3%	-	-	85.7%	-	-
BIOL-25		79.2%	-	-	92.5%	-	-	90.7%	100.0%	-	78.7%	85.3%	-
BIOL-26		-	-	97.1%	-	-	93.1%	-	100.0%	100.0%	-	96.6%	91.7%
BIOL-32		100.0%	-	-	-	-	97.0%	-	-	-	-	-	-
BIOL-32L		100.0%	-	100.0%	100.0%	-	-	100.0%	-	92.9%	88.9%	-	81.8%
BIOL-4		-	-	85.7%	-	-	-	-	-	100.0%	-	-	75.0%
MATH-103		87.5%	88.5%	83.1%	75.9%	89.4%	79.0%	-	89.6%	-	-	-	-
MATH-107		-	-	-	-	-	-	66.7%	-	-	-	-	-
MATH-108		-	-	-	-	-	-	100.0%	-	100.0%	-	-	-
MATH-140		-	-	-	-	-	-	74.0%	-	75.0%	-	-	-
MATH-1A		85.7%	-	-	90.9%	-	-	71.4%	-	-	50.0%	-	-
MATH-1B		-	-	85.7%	-	-	100.0%	-	-	100.0%	-	-	100.0%
MATH-40		81.2%	91.7%	85.1%	92.0%	80.6%	81.6%	82.4%	85.0%	82.4%	68.2%	88.4%	80.0%
MATH-60		82.6%	93.5%	90.5%	74.6%	94.0%	84.8%	86.5%	84.4%	81.9%	81.5%	100.0%	77.4%
MATH-7		90.9%	-	-	55.6%	-	-	62.5%	-	-	66.7%	-	-
MATH-8		-	-	89.5%	-	-	90.5%	100.0%	-	100.0%	-	-	91.7%
GEOL-1		90.5%	-	-	88.2%	-	-	95.0%	-	-	78.9%	-	-
GEOL-5		-	-	96.3%	-	-	100.0%	-	-	92.9%	-	-	78.6%
PHSC-1		80.6%	92.0%	84.8%	77.4%	91.3%	91.5%	90.6%	84.2%	88.5%	83.9%	93.8%	96.2%
PHYS-2A		89.5%	-	-	-	-	-	77.8%	-	-	-	-	-
PHYS-2B		-	-	88.9%	-	-	-	-	-	75.0%	-	-	-
MATH-164		-	-	-	-	-	-	-	-	-	73.2%	0.0%	76.8%
MATH-167		-	-	-	-	-	-	-	-	-	85.7%	-	-
MATH-168		-	-	-	-	-	-	-	-	-	-	-	91.7%
CHEM-55		-	-	87.5%	-	-	-	-	-	-	-	-	-

Table 23. Retention Rates by Location

Location	Academic Year: 2017 FA	2017 SU	2017 SP	2018 FA	2018 SU	2018 SP	2019 FA	2019 SU	2019 SP	2020 FA
Main Campus	85.9%	-	89.5%	81.6%	-	87.3%	85.9%	-	86.3%	-
Hybrid	-	-	78.6%	-	-	-	100.0%	100.0%	93.6%	-
Incarcerated Correspondence Ed	78.8%	88.2%	83.7%	77.1%	88.0%	82.0%	81.5%	91.2%	80.4%	77.2%
Cdcr/Fci F2f Education	-	-	-	88.6%	-	100.0%	83.2%	-	90.5%	56.3%
Internet	82.6%	94.9%	88.7%	79.4%	88.5%	87.7%	84.6%	87.4%	82.2%	78.0%

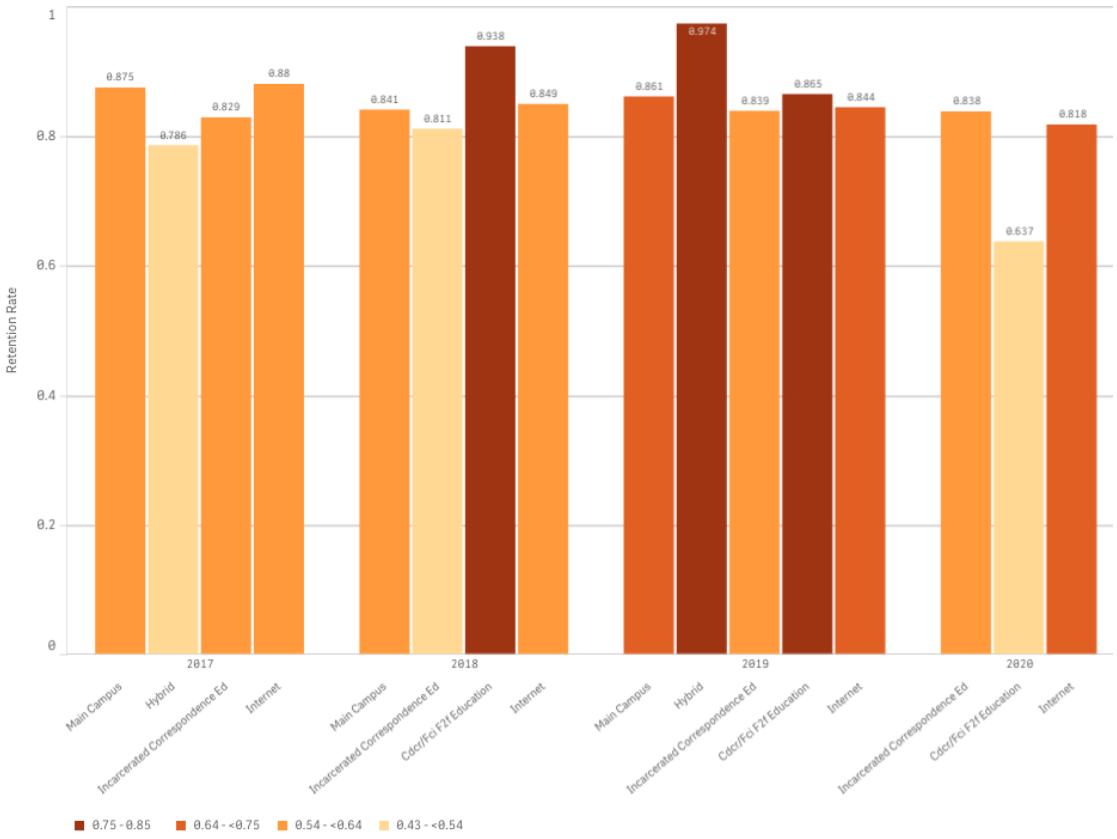


Table 24. Retention Rates by Student Gender

Gender	Academic Year: 2017 FA	2017 SU	2017 SP	2018 FA	2018 SU	2018 SP	2019 FA	2019 SU	2019 SP	2020 FA	2020 SU
-	-	-	-	50.0%	-	-	-	100.0%	-	-	-
Female	83.5%	93.1%	90.7%	81.0%	88.6%	86.0%	87.0%	92.5%	86.5%	79.2%	88.0%
Male	83.4%	91.0%	84.8%	79.7%	88.1%	87.1%	83.3%	90.4%	84.7%	72.5%	95.1%

Table 25. Retention Rates by Ethnicity (8)

Ethnicity	Academic Year / Semester	2017			2018			2019			2020		
		FA	SU	SP	FA	SU	SP	FA	SU	SP	FA	SU	SP
Unknown/Non-Respondent		91.7%	100.0%	88.9%	63.6%	100.0%	100.0%	89.7%	100.0%	80.0%	68.2%	100.0%	100.0%
White		84.5%	89.1%	88.7%	81.9%	87.5%	87.7%	83.6%	88.8%	86.5%	77.6%	91.1%	82.4%
Hispanic		81.3%	94.5%	87.5%	78.5%	93.1%	84.8%	87.0%	91.5%	83.3%	74.9%	88.9%	75.2%
Pacific Islander		71.4%	100.0%	93.8%	70.0%	100.0%	77.8%	42.9%	-	100.0%	100.0%	-	33.3%
American Indian/Alaskan		81.3%	100.0%	80.8%	76.0%	100.0%	100.0%	79.2%	100.0%	90.5%	77.8%	100.0%	90.0%
Black or African American		87.1%	90.3%	82.1%	80.9%	86.0%	87.5%	84.3%	93.8%	87.6%	72.6%	95.0%	86.4%
Asian		81.8%	87.5%	88.9%	80.0%	83.3%	84.8%	87.0%	95.5%	88.5%	88.2%	100.0%	87.5%
Two or More Races		76.3%	90.9%	87.2%	82.1%	66.7%	77.8%	81.0%	88.9%	75.9%	55.0%	100.0%	96.4%

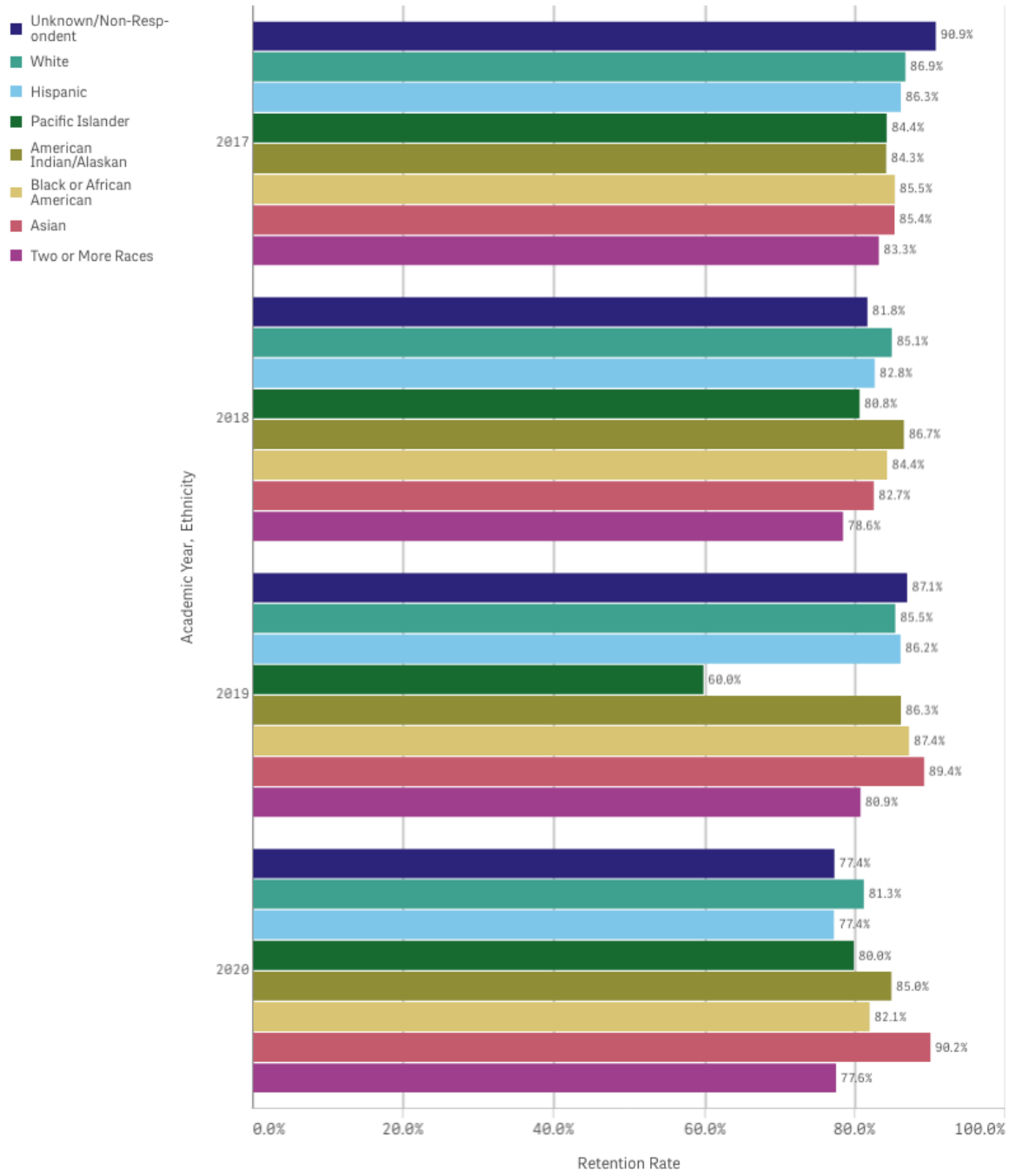


Table 26. Retention Rates by CalWorks Eligibility

CalWorks	Academic Year 2017	2018	2019	2020
CalWorks Eligible	76.9%	83.3%	97.0%	86.7%

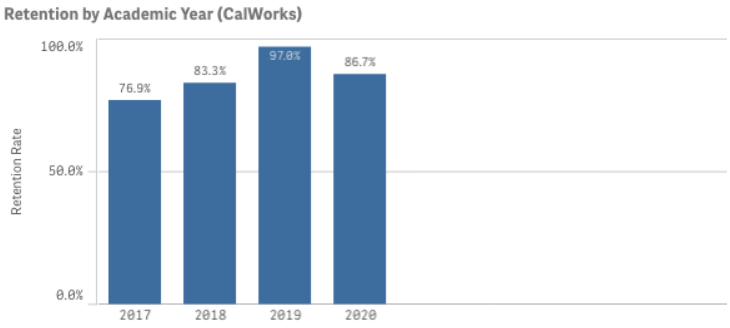


Table 27. Retention Rates by Disability Status

Disabled	Academic Year 2017	2018	2019	2020
Disabled	76.4%	69.1%	88.0%	75.6%

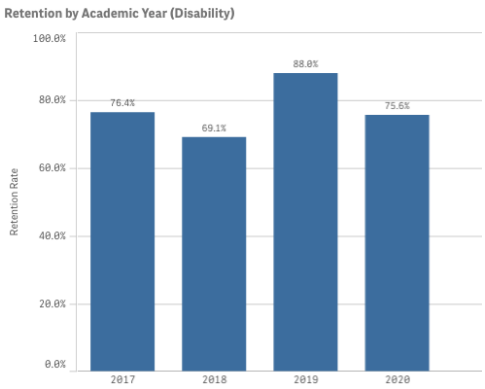


Table 28. Retention Rates by EOPS Eligibility

EOPS	Academic Year 2017	2018	2019	2020
EOPS Eligible	85.1%	87.7%	87.2%	86.9%

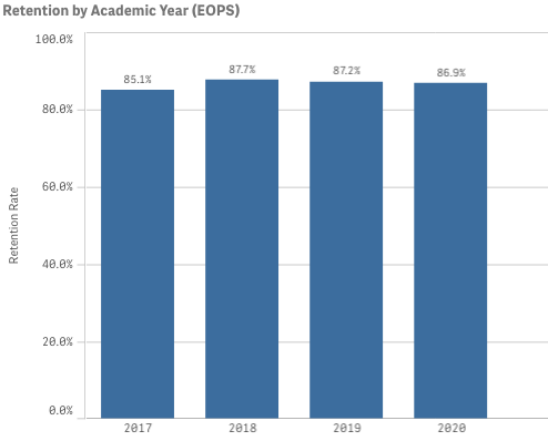


Table 29. Retention Rates by Veteran / Military Dependent Status

Veteran Status, ...	Academic Year 2017	2018	2019	2020
-	86.0%	84.2%	85.9%	79.9%
Parent/Guard Veteran	94.1%	90.9%	83.3%	81.7%
Veteran	100.0%	66.7%	100.0%	100.0%
Veteran Discharged over 1 Year	78.4%	75.9%	86.4%	87.5%
Veteran Discharged in Last Year	88.2%	61.9%	80.5%	88.9%
Military Dependent	83.3%	87.5%	100.0%	100.0%
Active Military	100.0%	100.0%	100.0%	100.0%
Active Reserve/National Guard	-	-	100.0%	-
Member of the National Guard	100.0%	50.0%	100.0%	100.0%
Parent/Guard Reserves	100.0%	50.0%	100.0%	100.0%

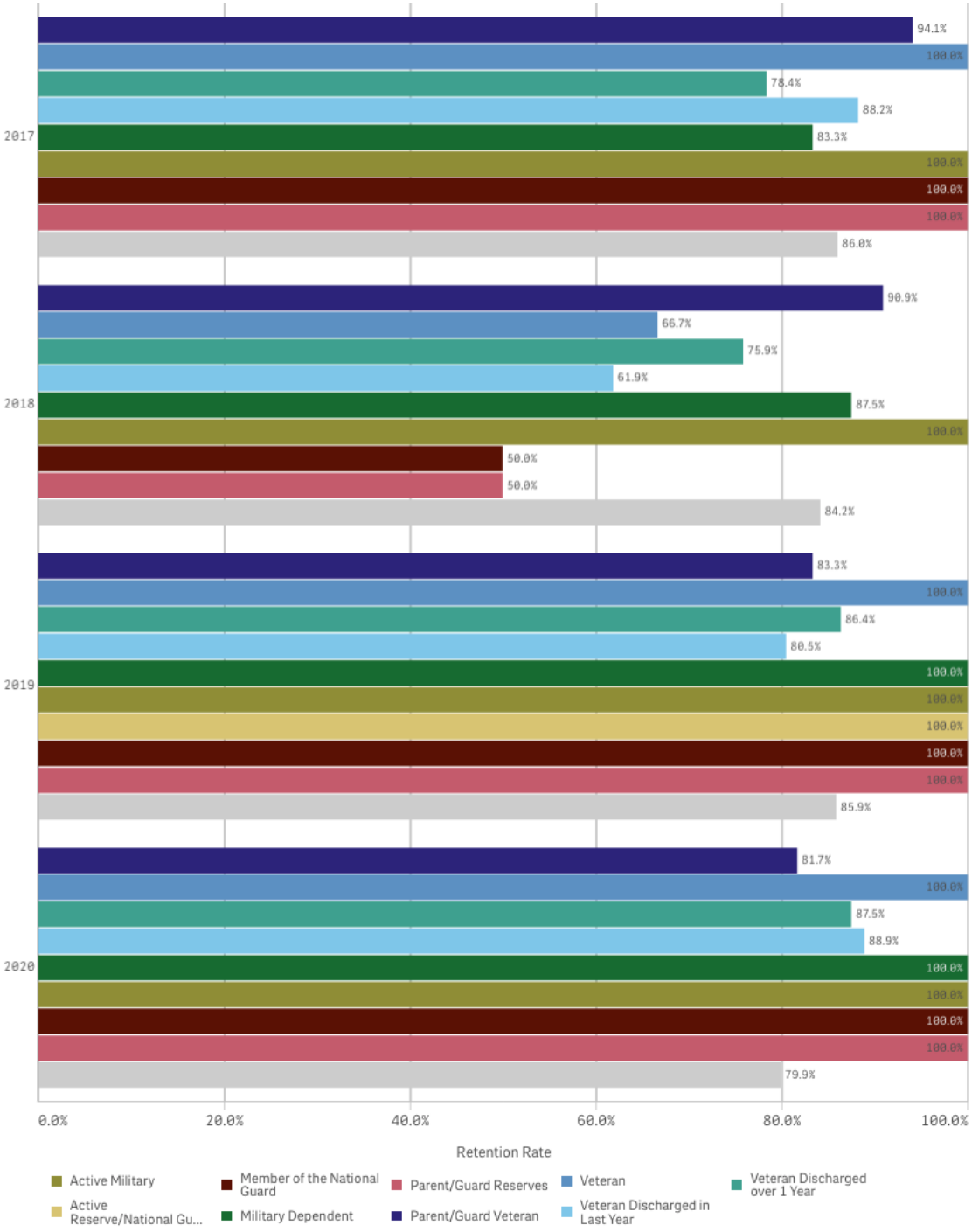


Table 30. Number of SLO's Assessed and Achieved, with SLO Attainment Rate (%)

Academic Year	# SLO's Assessed	#SLO's Achieved	SLO Attainment Rate (in %)
2017	1515	1042	68.8%
2018	1062	799	75.2%
2019	1016	780	76.8%
2020	1058	840	79.4%

Table 31. SLOs By Course

Academic Year / Subject	# Assessed	# Achieved	Average% Achieved
Totals	**4651**	**3461**	**74.4%**
2017	**1515**	**1042**	**68.8%**
ANTH	99	68	68.7%
BIOL	188	167	88.8%
CHEM	52	52	100.0%
GEOL	39	28	71.8%
MATH	1090	690	63.3%
PHSC	23	18	78.3%
PHYS	24	19	79.2%
2018	**1062**	**799**	**75.2%**
ANTH	12	9	75.0%
BIOL	174	143	82.2%
CHEM	66	35	53.0%
GEOL	34	30	88.2%
MATH	776	582	75.0%
PHSC	0	0	-
2019	**1016**	**780**	**76.8%**
ANTH	93	77	82.8%
BIOL	159	139	87.4%
CHEM	67	60	89.6%
GEOL	23	18	78.3%
MATH	664	477	71.8%
PHSC	0	0	-
PHYS	10	9	90.0%
2020	**1058**	**840**	**79.4%**
ANTH	113	101	89.4%
BIOL	195	164	84.1%
CHEM	51	49	96.1%
GEOL	19	16	84.2%
MATH	638	480	75.2%
PHSC	42	30	71.4%

Table 32. SLOs By Modality

Modality / Measures	2017				2018			2019			2020		
	2017FA	2017fA	2017SU	2018SP	2018FA	2018SU	2019SP	2019FA	2019SU	2020SP	2020FA	2020SU	2021SP
Correspondence - % Attained	70.48%	-	53.28%	75.00%	87.78%	60.00%	75.31%	64.04%	55.74%	77.14%	71.79%	74.63%	83.54%
Correspondence - Assessed	166	-	122	136	90	80	81	114	61	105	78	134	79
Correspondence - Achieved	117	-	65	102	79	48	61	73	34	81	56	100	66
Face-to-Face - % Attained	70.69%	91.67%	-	86.86%	72.44%	-	82.45%	79.81%	-	79.29%	43.48%	-	-
Face-to-Face - Assessed	348	12	-	175	225	-	245	312	-	140	46	-	-
Face-to-Face - Achieved	246	11	-	152	163	-	202	249	-	111	20	-	-
Face to Face - % Attained	-	-	-	-	-	-	-	-	-	-	-	-	76.67%
Face to Face - Assessed	-	-	-	-	-	-	-	-	-	-	-	-	60
Face to Face - Achieved	-	-	-	-	-	-	-	-	-	-	-	-	46
Hybrid - % Attained	-	-	-	62.12%	-	-	-	91.67%	88.37%	100.00%	-	-	-
Hybrid - Assessed	-	-	-	66	-	0	-	24	43	17	-	-	-
Hybrid - Achieved	-	-	-	41	-	0	-	22	38	17	-	-	-
Internet - % Attained	72.50%	-	22.22%	73.10%	81.65%	44.16%	79.35%	79.73%	78.21%	72.92%	82.29%	91.30%	82.21%
Internet - Assessed	200	-	90	171	109	77	155	74	78	48	288	92	281
Internet - Achieved	145	-	20	125	89	34	123	59	61	35	237	84	231

Table 33. Success rate of Math 7

Course / Modality	Academic Year / Semester 2015 FA	2016 FA	2017 FA	2018 FA	2019 FA	2020 FA	2021 FA
MATH-7	**52.9%**	**30.0%**	**54.5%**	**33.3%**	**37.5%**	**33.3%**	-
In-Person	52.9%	30.0%	54.5%	33.3%	37.5%	-	-
Online	-	-	-	-	-	33.3%	-

Table 34. Success rate of Math 8

Course / Modality	Academic Year / Semester 2015 SP	2016 SP	2017 SP	2018 SP	2019 FA	2019 SP	2020 SP
MATH-8	**59.3%**	**35.3%**	**63.2%**	**52.4%**	**50.0%**	**72.7%**	**16.7%**
In-Person	59.3%	35.3%	63.2%	52.4%	50.0%	72.7%	-
Online	-	-	-	-	-	-	16.7%

Table 35. Success rate of MATH-40

CRS_NAME / Modality	Academic Year / Semester 2015 FA	2015 SU	2015 SP	2016 FA	2016 SU	2016 SP	2017 FA	2017 SU	2017 SP	2018 FA	2018 SU	2018 SP	2019 FA	2019 SU	2019 SP	2020 FA	2020 SU	2020 SP
MATH-40	**60.0%**	**39.3%**	**71.7%**	**73.7%**	**43.9%**	**67.3%**	**58.8%**	**47.2%**	**62.7%**	**63.0%**	**35.5%**	**56.6%**	**62.3%**	**57.5%**	**66.0%**	**43.3%**	**53.6%**	**65.3%**
Face to Face	60.0%	-	71.7%	73.7%	-	67.3%	64.7%	-	69.7%	60.7%	-	53.4%	67.8%	-	76.7%	21.6%	-	53.8%
Correspondence	-	-	-	-	-	-	-	-	-	-	-	-	29.7%	-	26.9%	29.4%	46.3%	75.0%
Internet	-	39.3%	-	-	43.9%	-	50.0%	47.2%	55.9%	66.7%	35.5%	60.9%	66.1%	57.5%	64.4%	65.3%	64.3%	68.4%

Table 36. Headcount by Modality and Academic Year for MATH-40, 7, and 8

Modality / CRS_NAME	Academic Year 2015	2016	2017	2018	2019	2020
Face to Face	**120**	**127**	**114**	**174**	**311**	**76**
MATH-40	91	108	82	147	289	76
MATH-7	17	10	22	18	8	-
MATH-8	27	17	19	21	18	-
Correspondence	-	-	-	-	**64**	**86**
MATH-40	-	-	-	-	64	86
Internet	**29**	**41**	**100**	**129**	**153**	**166**
MATH-40	29	41	100	129	153	149
MATH-7	-	-	-	-	-	9
MATH-8	-	-	-	-	-	13

Table 37. FTES by Course

FTES by Course, Academic Year and Semester

Course	2017			2018			2019			2020			Course FTES Totals	Course Average FTES:
	SU	FA	SP	SU	FA	SP	SU	FA	SP	SU	FA	SP		
ANTH-1	2.70	6.70	10.60	4.60	9.60	7.40	7.30	8.10	7.60	6.10	9.60	6.40	86.70	7.23
MATH-101	3.33	2.67	1.47	0.67	0.80	0.80	1.07	-	-	-	-	-	10.80	1.54
MATH-102	4.13	11.33	10.67	3.87	8.67	5.60	3.07	-	-	-	-	-	47.33	6.76
MATH-155	-	0.01	0.04	-	0.00	0.00	-	-	-	-	-	-	0.05	0.01
MATH-156	-	0.62	0.44	-	0.27	0.00	-	-	-	-	-	-	1.34	0.33
CHEM-1A	-	4.20	-	-	10.20	-	-	6.90	-	-	9.30	-	30.60	7.65
CHEM-1B	-	-	2.70	-	-	1.80	-	-	0.60	-	-	1.50	6.60	1.65
CHEM-45	-	1.40	2.00	-	3.00	4.20	-	3.40	3.40	-	2.00	3.60	23.00	2.88
CHEM-45A	-	-	-	-	-	-	-	0.23	0.17	-	0.17	0.30	0.87	0.22
CHEM-8	-	-	1.00	-	-	2.00	-	-	3.20	-	-	1.20	7.40	1.85
BIOL-1	-	-	0.80	-	-	1.00	-	-	-	-	-	0.00	1.80	0.60
BIOL-10	-	-	-	-	-	3.80	-	-	7.00	-	0.80	-	11.60	3.87
BIOL-20	-	6.60	2.10	-	5.10	-	-	8.10	-	-	8.40	-	30.30	6.06
BIOL-25	-	14.40	-	-	10.60	-	4.60	10.80	-	6.80	12.60	-	59.80	9.97
BIOL-26	-	-	6.80	-	-	5.80	4.00	-	6.40	5.80	-	7.20	36.00	6.00
BIOL-32	-	2.60	-	-	-	3.30	-	-	-	-	-	-	5.90	2.95
BIOL-32L	-	4.20	7.00	-	5.40	-	-	4.80	8.40	-	3.60	4.07	37.47	5.35
BIOL-4	-	-	2.10	-	-	-	-	-	1.50	-	-	1.20	4.80	1.60
MATH-103	10.40	30.40	30.80	9.40	31.60	12.40	9.60	-	-	-	-	-	134.60	19.23
MATH-107	-	-	-	-	-	-	-	0.30	-	-	-	-	0.30	0.30
MATH-108	-	-	-	-	-	-	-	0.10	1.10	-	-	-	1.20	0.60
MATH-140	-	-	-	-	-	-	-	15.31	12.10	-	-	-	27.41	13.70
MATH-1A	-	1.33	-	-	1.83	-	-	1.17	-	-	1.67	-	6.00	1.50
MATH-1B	-	-	1.17	-	-	0.83	-	-	0.67	-	-	0.67	3.33	0.83
MATH-40	3.60	8.50	6.70	3.10	10.00	15.20	4.00	27.21	20.70	6.90	15.70	9.50	131.11	10.93
MATH-60	6.20	18.40	27.40	10.00	22.80	19.80	6.40	19.20	16.60	5.20	18.80	16.80	187.60	15.63
MATH-7	-	2.20	-	-	1.80	-	-	0.80	-	-	0.90	-	5.70	1.43
MATH-8	-	-	1.90	-	-	2.10	-	0.40	1.40	-	-	1.30	7.10	1.42
GEOL-1	-	4.20	-	-	3.40	-	-	4.00	-	-	3.80	-	15.40	3.85
GEOL-5	-	-	5.40	-	-	5.40	-	-	4.40	-	-	3.00	18.20	4.55
PHSC-1	2.50	3.10	3.30	2.30	3.10	4.70	1.90	3.20	5.50	1.60	3.10	2.60	36.90	3.08
PHYS-2A	-	3.80	-	-	-	-	-	1.80	-	-	-	-	5.60	2.80
PHYS-2B	-	-	1.80	-	-	-	-	-	1.00	-	-	-	2.80	1.40
MATH-164	-	-	-	-	-	-	-	-	-	1.10	11.09	9.13	21.33	7.11
MATH-167	-	-	-	-	-	-	-	-	-	-	0.44	-	0.44	0.44
MATH-168	-	-	-	-	-	-	-	-	-	-	-	1.26	1.26	1.26
CHEM-55	-	-	1.80	-	-	-	-	-	-	-	-	-	1.80	1.80
Column Averages:	4.70	6.67	5.82	4.85	7.54	5.06	4.66	6.43	5.65	4.79	6.37	4.10	27.31	

Appendix II. Post Graduate Survey on Institutional Learning Outcomes (ISLO)
Survey Date: May 27, 2021 for the 2020-2021 Academic Year

Post Graduate Survey on Institutional Learning Outcomes (ISLO)

Survey Date: May 27, 2021

for the

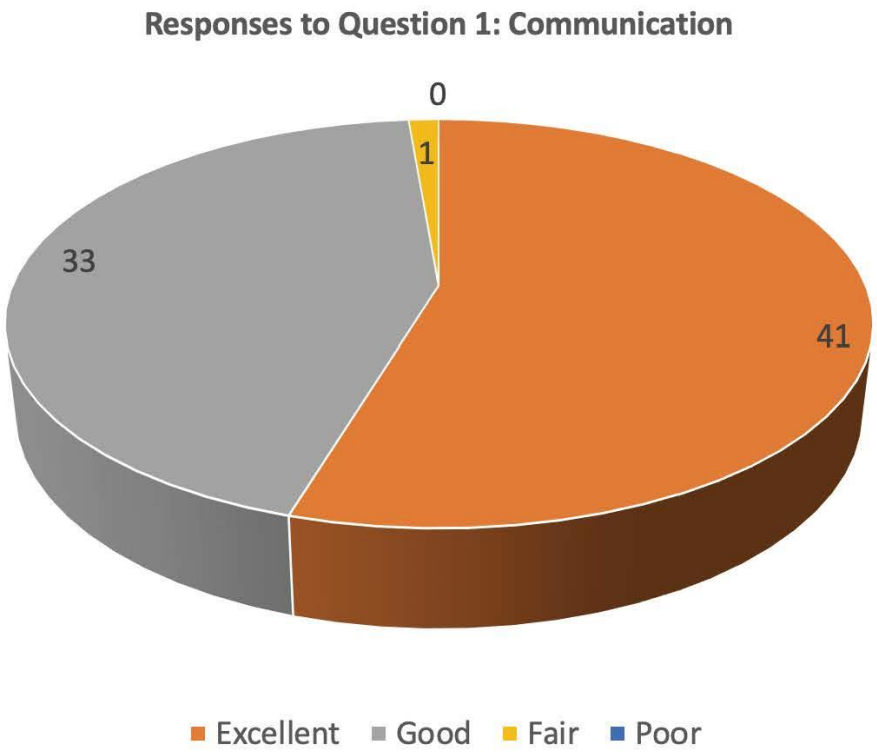
2020-2021 Academic Year

Report Compiled by

Office of Institutional Effectiveness

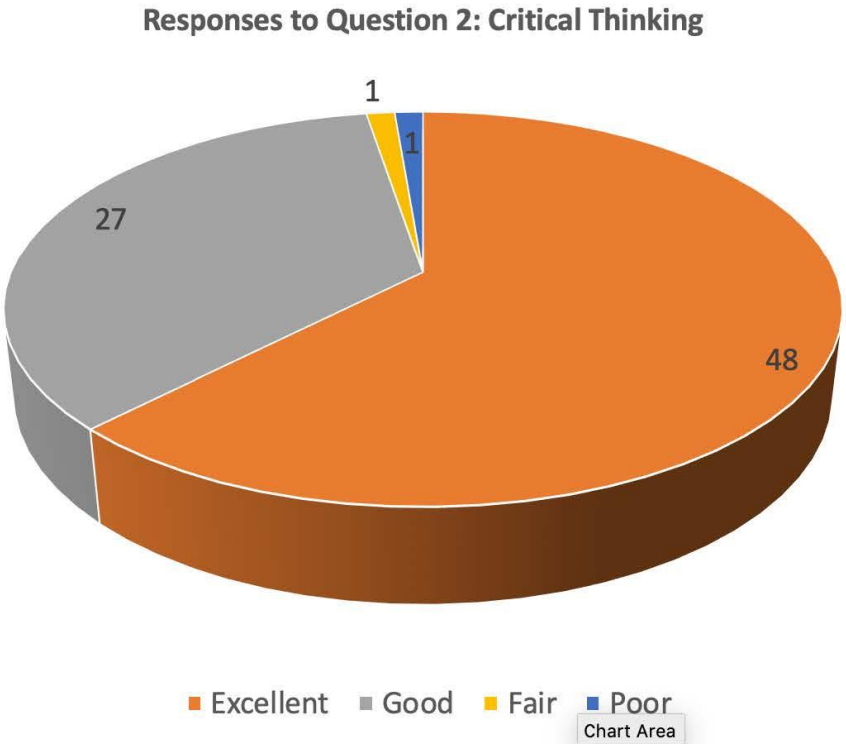
Randy Joslin, D.P.A.
Director of Institutional Effectiveness

Question 1: Communication: As a new LCC graduate, how would now rate your communication abilities? (ability to listen and read with comprehension, and ability to write and speak effectively)



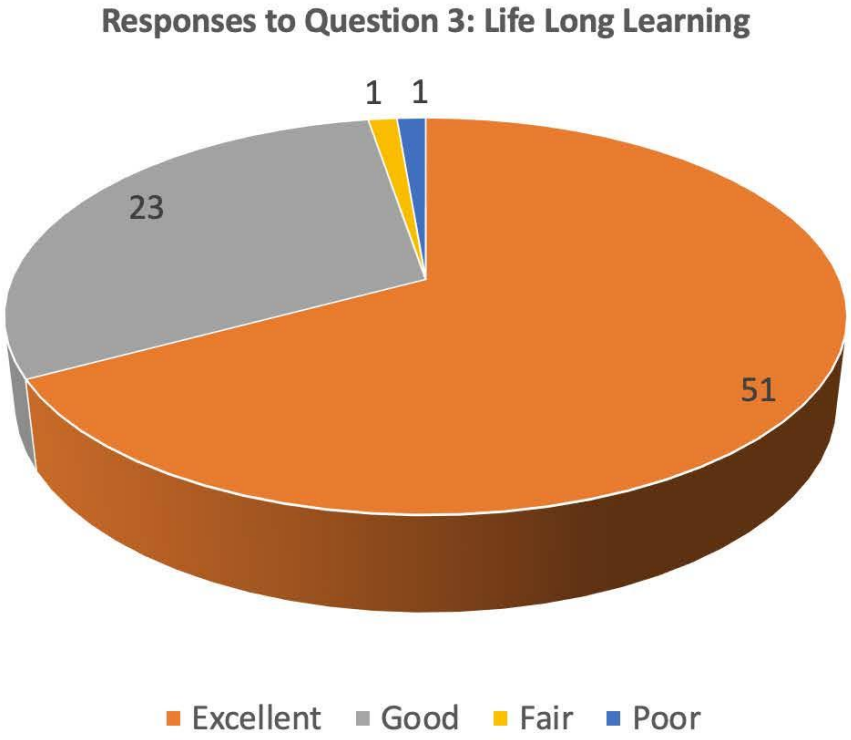
Responses to Q1: Communication:		
Excellent	41	54.7%
Good	33	44.0%
Fair	1	1.3%
Poor	0	0.0%
Total Responses:	75	100.0%

Question 2: Critical Thinking: Now that you are graduating, how would you rate your critical thinking abilities? (ability to analyze a situation, identify and research a problem, ability to propose a solution or desired outcome, ability to implement a plan to address the problem, ability to evaluate progress and adjust the plan as appropriate to arrive at the solution or desired outcome)



Responses to Question 2: Critical Thinking		
Excellent	48	62.3%
Good	27	35.1%
Fair	1	1.3%
Poor	1	1.3%
Total Responses:	77	100.0%

Question 3: Life Long Learning: Now that you are graduating, how would you rate your abilities as a "Life Long Learner"? (ability to engage in independent acquisition of knowledge; ability to access information including use of current technology; ability to use the internet and/or library to access and analyze information for relevance and accuracy; ability to navigate systems)



Responses to Question 3: Life Long Learning		
Excellent	51	67.1%
Good	23	30.3%
Fair	1	1.3%
Poor	1	1.3%
Total Responses:	76	100.0%

Question 4: Personal/Interpersonal Responsibility: Now that you are graduating, how would your rate your abilities in personal and interpersonal responsibility? (ability to develop and apply strategies to set realistic goals for personal, educational, career, and community development; ability to apply standards of personal and professional integrity; ability to cooperate with others in a collaborative environment for accomplishment of goals; ability to interact successfully with other cultures)

Responses to Question 4: Personal/Interpersonal Responsibility		
Excellent	49	63.6%
Good	26	33.8%
Fair	2	2.6%
Poor	0	0.0%
Total Responses:	77	100.0%

Question 5: What would you say are the strengths of Lassen Community College? (optional):

For Question #5, there were 57 Total Responses:

Responses related to Faculty/Staff:

Allison Sommerville.
Garrett Taylor is the best
staff
strong staff
Student support from faculty and staff who truly care for their
The staff is very understanding and very helpful
The staff's willingness to help you achieve
Very friendly staff and teachers
counselors, teachers
EOPS Counselors
In the classroom with some of the best teachers
Most of the teachers and staff members. I only had one or two bad experiences
My instructors were invested in my success
Amazing student services & staff

Responses related to Instruction:

History classes and sports
Online classes ***(X3 Responses)***
Lots of classes offered with knowledgeable instructors
Engagement in Student Relations
Smaller classrooms
Nursing Program
Ability for 1 on 1 instruction
Public speeking
Being a community college with smaller classes its nice having an easier
Being individualized with small numbers in classes

Responses related to Student Support:

Ability for students and teachers to communicate because of small
Students Support system
Understanding and supportive
willingness to work with you
Excellent student outreach support

Responses related to the LCC Culture and Environment:

Welcoming environment
Everything is great I have enjoyed getting my degree here!
versatile, good investment
Flexibility
Inclusive to everyone
Being inclusive
class accommodations
Close to home
Programs and assistance for challenged/disadvantaged students

Responses related to "Communication":

Great communication with students
Teacher communication with students
communication is prompt
Communication skills
communication, nursing skills
organization and communication skills

"Community"-Related Responses:

Small understanding community. Always see people you know.
The community
The community in it
The community outreach, professors, and programs to help
Smaller community makes it easier to communicate

Other Reponses:

I'm a quick learner
Teaching
Writing, Reading
Advocating for myself
Ability to adapt
Ability to challenge myself, and ready for the world.

Question 6: What areas of improvement would you suggest for Lassen Community College? Please include any unmet needs (instructional planning, facilities, staffing, administrative operations, technology, student support services) that could improve the student experience (optional).

For Question #6, there were 43 Total Responses:

Responses Related to Instruction:

no online stuff for sciences
Vary the times and days classes are offered
RN Bridge Program
More online
More online options
in online learning don't have discussion posts
Night accounting classes
Night time micro
night time microbiology
math class
Maybe online nursing classes for people who have to work full time
It was good expand you online classes.

Responses Related to Faculty & Staff:

Teachers to be checking in with students more who are online
Staff/teachers in Math/Science building need to be kinder/more understanding to students
some teachers are not very flexible
non-biased teachers
Wish Patrick Walton was still here

Responses Related to Technology:

Technology support
Technology update
Canvas support

Responses Related to the Café'/Bookstore:

better food
Open café again. I know COVID but that would have been great
Please sell feminine hygiene products at student store AND/OR include feminine hygiene products in the restrooms to purchase. It is very inconvenient to leave campus when items should be available at the student store!

Responses Related to Communication:

Students who are having a hard time need to be heard and not brought down
Communicating, socializing
communication between faculty and students
communication needs work
communication to students, organizational abilities need to improve
better communication with students about resources
Put out information in a timely manner

Responses Related to Athletics:

More sports - football
Coaches for sports team

Responses Related to Facilities:

newer facilities
Facilities updates to old buildings - heat/AC; Additional health care degrees & certificates
Open all facilities and resources. Impossible to get a hold of anyone.

Other Responses:

Administrative operations, planning
None . I thought my experience was best as it could be .

Responses Related to Student Serves & Residence Hall:

more student resources
transfer college options/knowlege
Maintain what you are currently doing for student support services and administrative operations. Improve the dorms.
Better graduation organization. upgrade science
Better support in the DSPS office (the person working in there doesn't always help students, students come second to her personal life), Better instructor interaction with online classes (answering students questions instead of brushing them off & helping when the online classes

Question 7: Please enter your Student ID number below (for demographic purposes only, your name will never be disclosed or used in relation to your responses to this survey)

For Question #7, there were 56 total (usable) responses submitted. These responses are documented but not listed here in order to most appropriately protect student privacy.

Appendix III. Student Evaluation Comments

Fall 2020

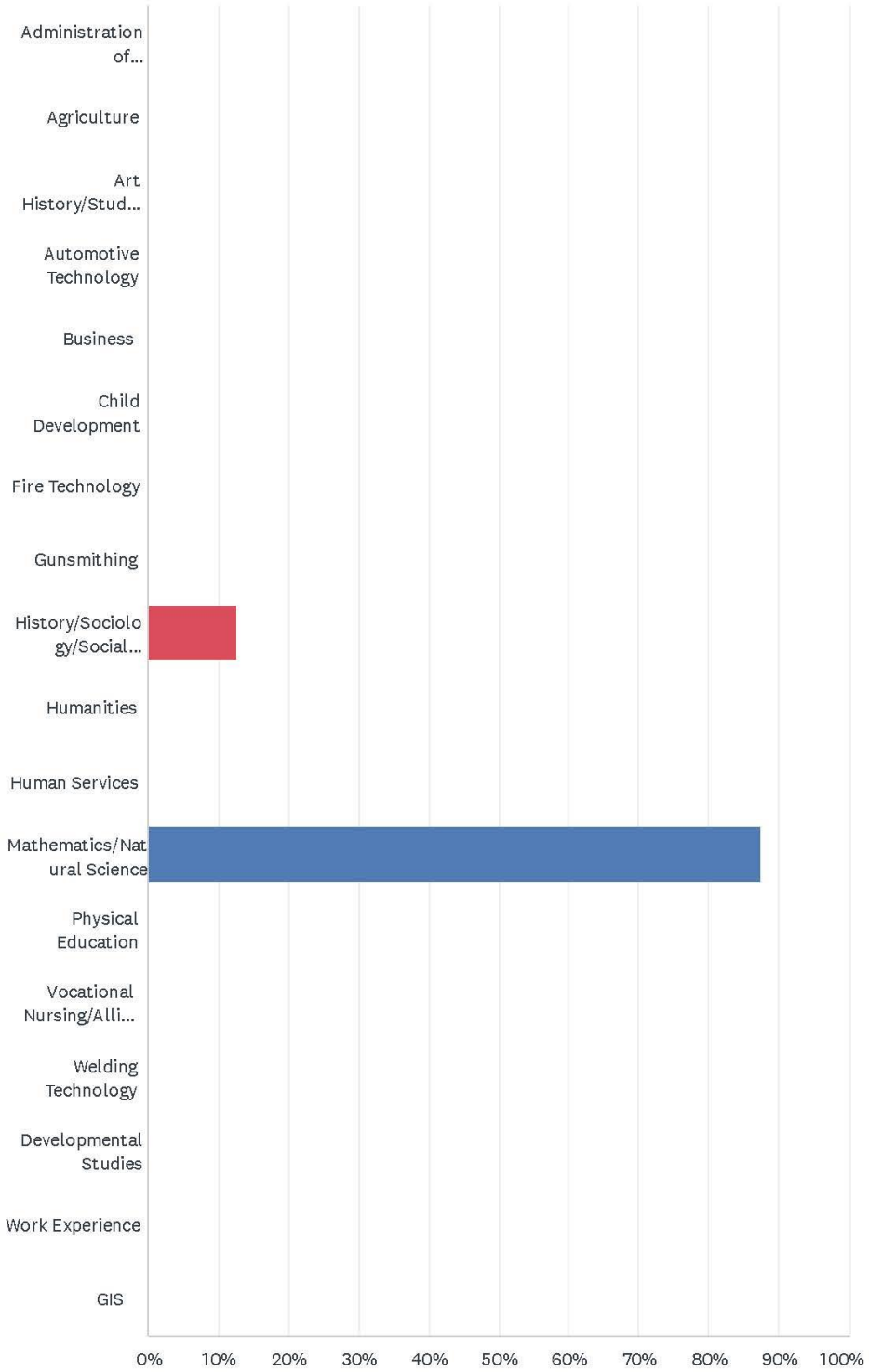
Q1 Course Number (Examples: AGR-1-M0095, MUS-12-K0669, etc...):

Answered: 8 Skipped: 0

#	RESPONSES	DATE
1	BIOL-32L-N1188	10/14/2021 4:52 PM
2	Bio 32L	11/16/2020 1:18 PM
3	Bio 32-L N188	11/16/2020 1:17 PM
4	Bio-32	11/16/2020 1:17 PM
5	BIO32	11/16/2020 1:16 PM
6	BIOL-32L	11/16/2020 1:16 PM
7	BIO-32-N188	11/16/2020 1:12 PM
8	Bio-32L	11/16/2020 1:12 PM

Q2 Name of Program: (Select only one option)

Answered: 8 Skipped: 0


Administration of...
Agriculture
Art History/Stud...
Automotive Technology
Business
Child Development
Fire Technology
Gunsmithing
History/Sociology/Social...
Humanities
Human Services
Mathematics/Natural Science
Physical Education
Vocational Nursing/Alli...
Welding Technology
Developmental Studies
Work Experience
GIS
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

ANSWER CHOICES	RESPONSES	
Administration of Justice/Correctional Science	0.00%	0
Agriculture	0.00%	0
Art History/Studio Art	0.00%	0
Automotive Technology	0.00%	0
Business	0.00%	0
Child Development	0.00%	0
Fire Technology	0.00%	0
Gunsmithing	0.00%	0
History/Sociology/Social Science/Psychology	12.50%	1
Humanities	0.00%	0
Human Services	0.00%	0
Mathematics/Natural Science	87.50%	7
Physical Education	0.00%	0
Vocational Nursing/Allied Health	0.00%	0
Welding Technology	0.00%	0
Developmental Studies	0.00%	0
Work Experience	0.00%	0
GIS	0.00%	0
TOTAL		8

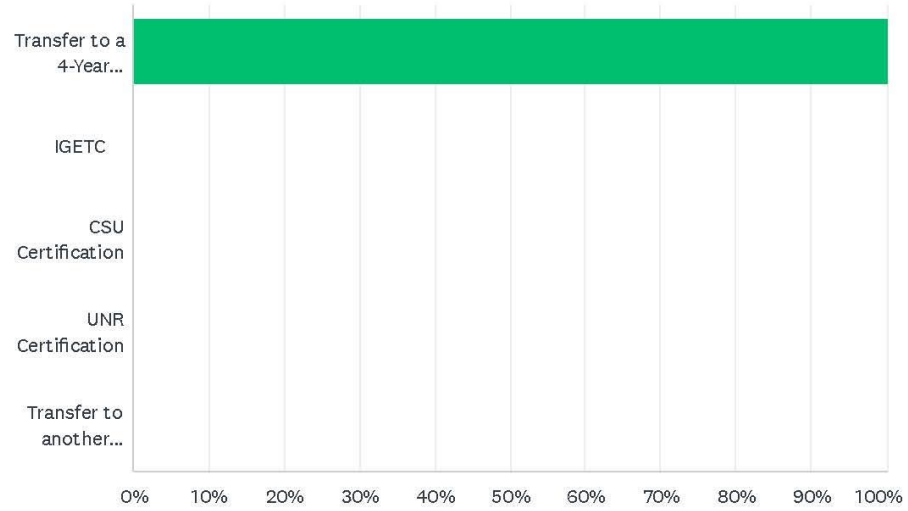
Q3 Course Name/Title:

Answered: 8 Skipped: 0

#	RESPONSES	DATE
1	General Biology	10/14/2021 4:52 PM
2	Bio 32L	11/16/2020 1:18 PM
3	Biology 32 Lab	11/16/2020 1:17 PM
4	Biology-32	11/16/2020 1:17 PM
5	Bio	11/16/2020 1:16 PM
6	General Biology	11/16/2020 1:16 PM
7	Biology 32	11/16/2020 1:12 PM
8	Biology	11/16/2020 1:12 PM

Q4 Educational Goal: In relation to your general educational goal(s),what is your educational objective at Lassen Community (Check all that apply):

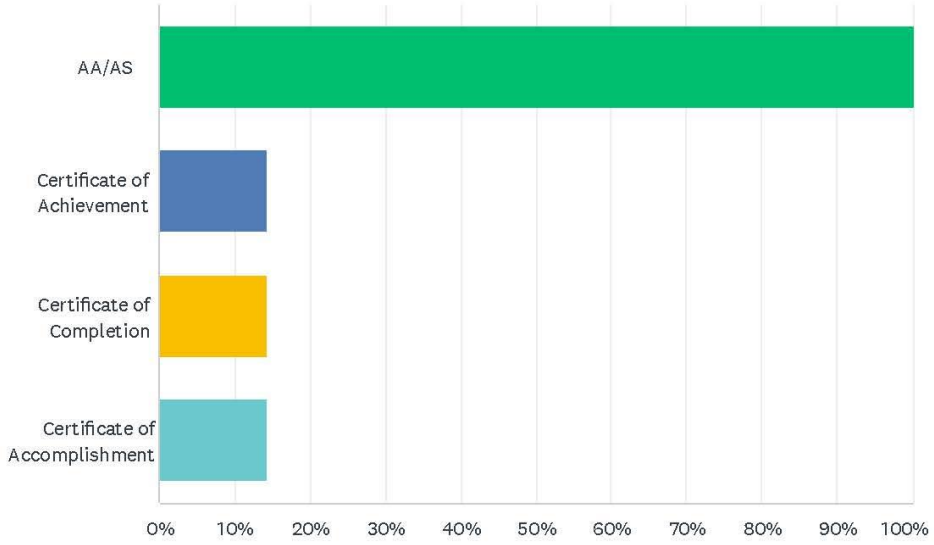
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Transfer to a 4-Year Institution	100.00%	8
IGETC	0.00%	0
CSU Certification	0.00%	0
UNR Certification	0.00%	0
Transfer to another community College	0.00%	0
Total Respondents: 8		

Q5 Educational Goal: In relation to your degree or certificate goal(s),what is your educational objective at Lassen Community (Check all that apply):

Answered: 7 Skipped: 1

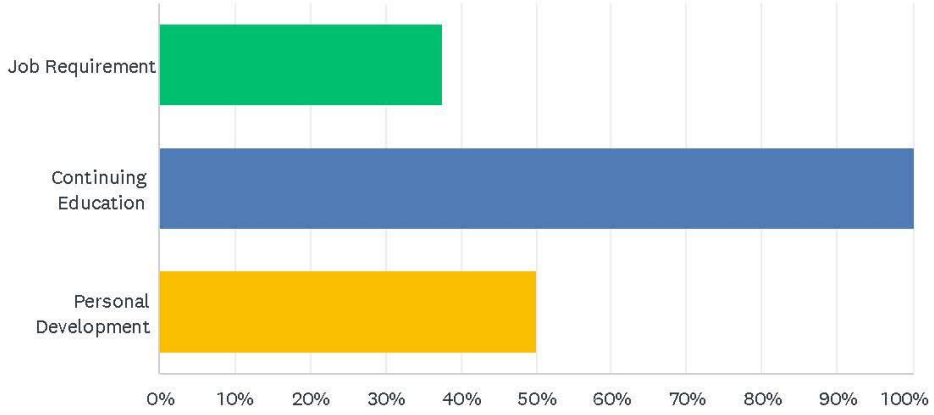


ANSWER CHOICES	RESPONSES	
AA/AS	100.00%	7
Certificate of Achievement	14.29%	1
Certificate of Completion	14.29%	1
Certificate of Accomplishment	14.29%	1
Total Respondents: 7		

#	PLEASE LIST THE TITLE OF THE DEGREE OR CERTIFICATE HERE:	DATE
1	Extra courses	10/14/2021 4:52 PM
2	AA in Pyschology	11/16/2020 1:18 PM
3	Psychology and sociology	11/16/2020 1:17 PM
4	Administrative Justice	11/16/2020 1:17 PM
5	psychology	11/16/2020 1:16 PM
6	AA for Transfer in Psychology / AA for Transfer in Criminal Justice	11/16/2020 1:16 PM
7	English AA	11/16/2020 1:12 PM

Q6 Educational Goal: How would you describe your general interest for achieving your educational goal(s) at Lassen Community, (Check all that apply):

Answered: 8 Skipped: 0

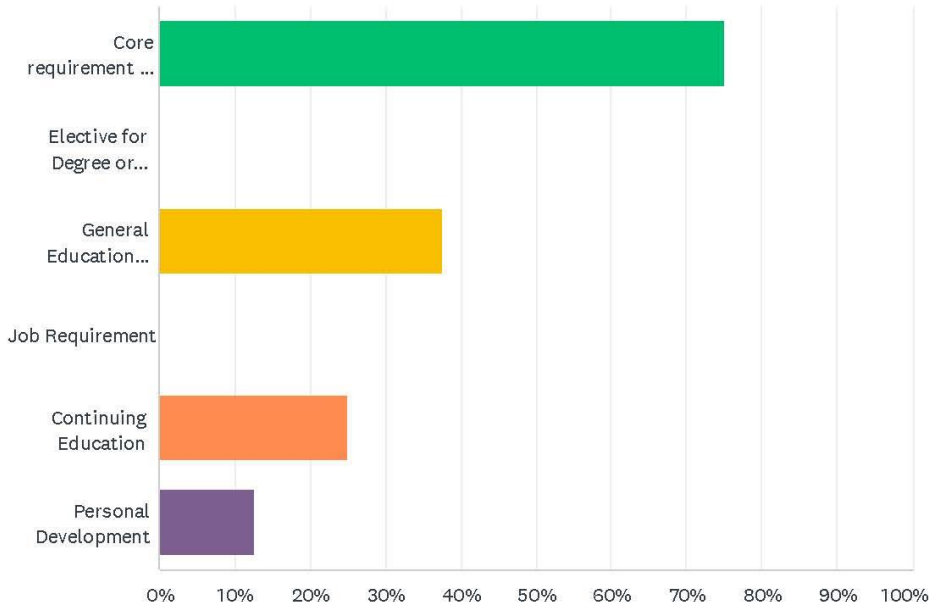


ANSWER CHOICES	RESPONSES	
Job Requirement	37.50%	3
Continuing Education	100.00%	8
Personal Development	50.00%	4
Total Respondents: 8		

#	OTHER (PLEASE DESCRIBE):	DATE
	There are no responses.	

Q7 You need this course: Why are you taking this course?

Answered: 8 Skipped: 0

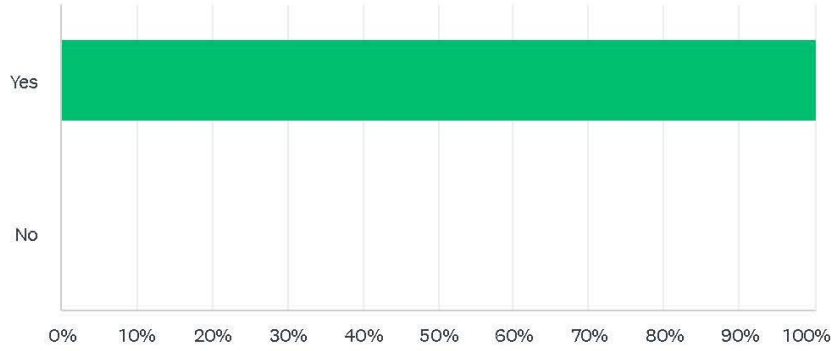


ANSWER CHOICES	RESPONSES	
Core requirement for degree or certificate	75.00%	6
Elective for Degree or Certificate	0.00%	0
General Education course for degree or transfer	37.50%	3
Job Requirement	0.00%	0
Continuing Education	25.00%	2
Personal Development	12.50%	1
Total Respondents: 8		

#	OTHER (PLEASE DESCRIBE):	DATE
	There are no responses.	

Q8 Does the course content reasonably compare with the catalog/schedule description?

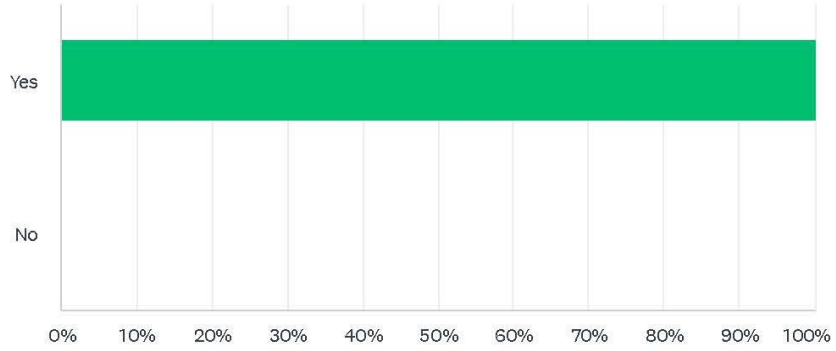
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	100.00%	8
No	0.00%	0
TOTAL		8

Q9 Did the catalog clearly explain the order in which the courses in this program should be taken?

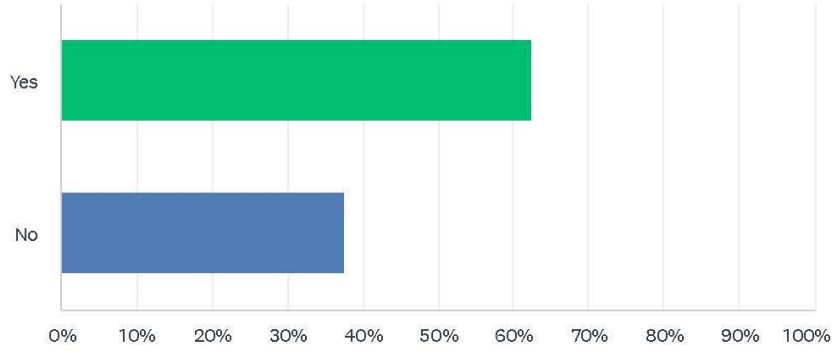
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	100.00%	8
No	0.00%	0
TOTAL		8

Q10 Was any cost for this course/program, beyond registration and books, clearly identified in the catalog?

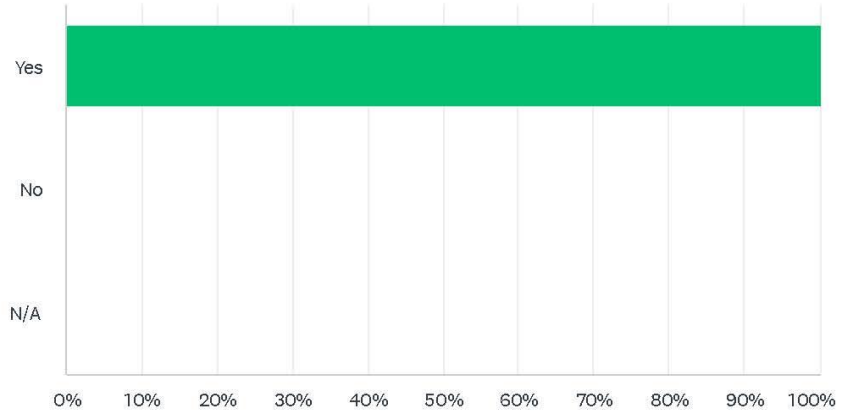
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	62.50%	5
No	37.50%	3
TOTAL		8

Q11 Did the instructors use the required textbooks in the program?

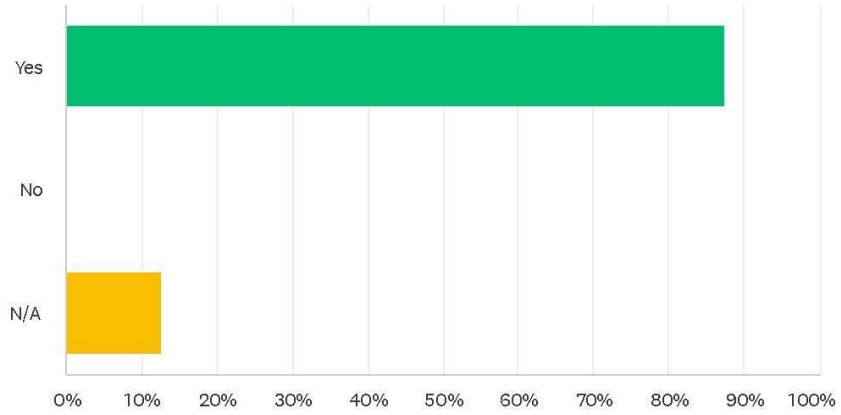
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	100.00%	8
No	0.00%	0
N/A	0.00%	0
TOTAL		8

Q12 Are the textbooks purchased for this course/program useful to you?

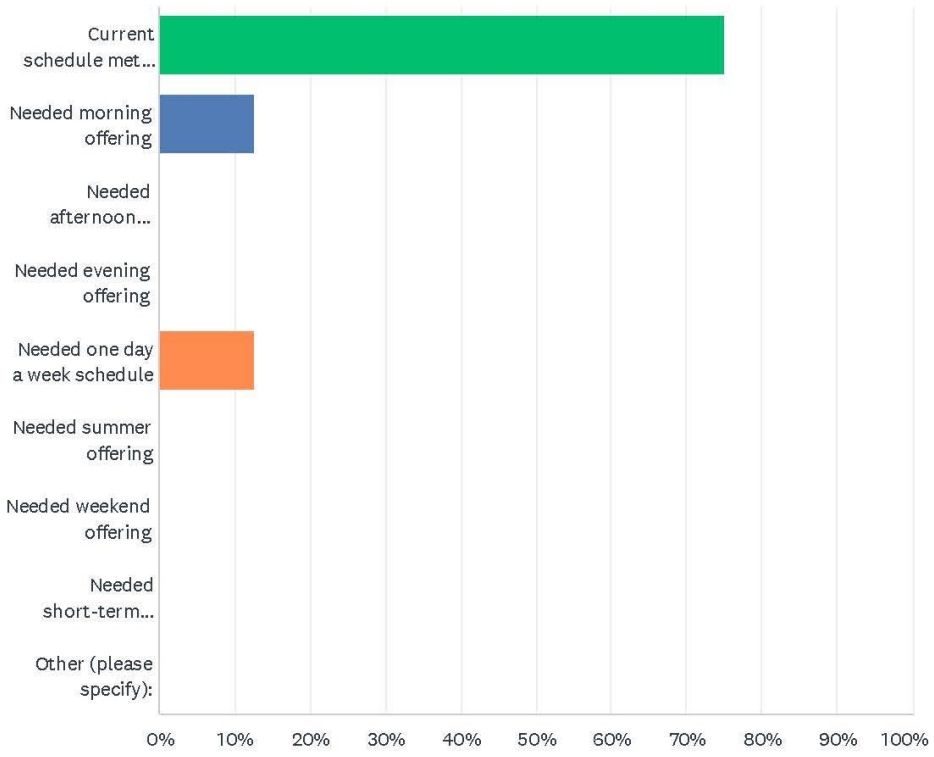
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	87.50%	7
No	0.00%	0
N/A	12.50%	1
TOTAL		8

Q13 Scheduling: Did the scheduling of the course meet your needs?

Answered: 8 Skipped: 0

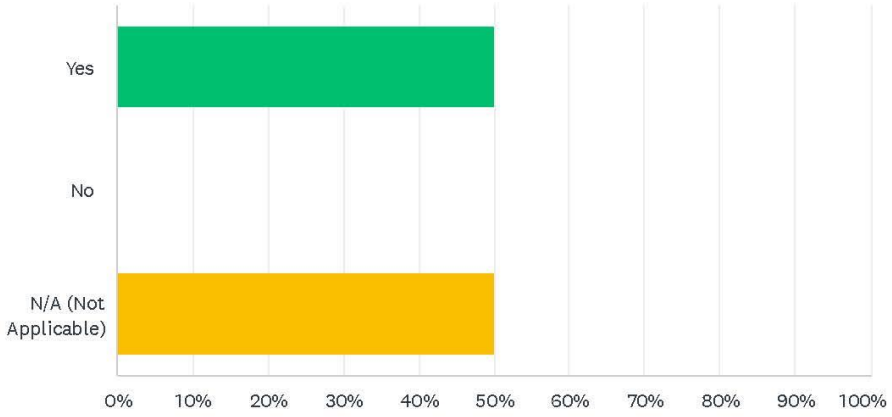


ANSWER CHOICES	RESPONSES	
Current schedule met my needs	75.00%	6
Needed morning offering	12.50%	1
Needed afternoon offering	0.00%	0
Needed evening offering	0.00%	0
Needed one day a week schedule	12.50%	1
Needed summer offering	0.00%	0
Needed weekend offering	0.00%	0
Needed short-term (less than semester) offering	0.00%	0
Other (please specify):	0.00%	0
TOTAL		8

#	OTHER (PLEASE SPECIFY):	DATE
	There are no responses.	

Q14 I was provided with reasonable access to the facilities? (Not Applicable (N/A) for those who have not physically attended classes on campus)

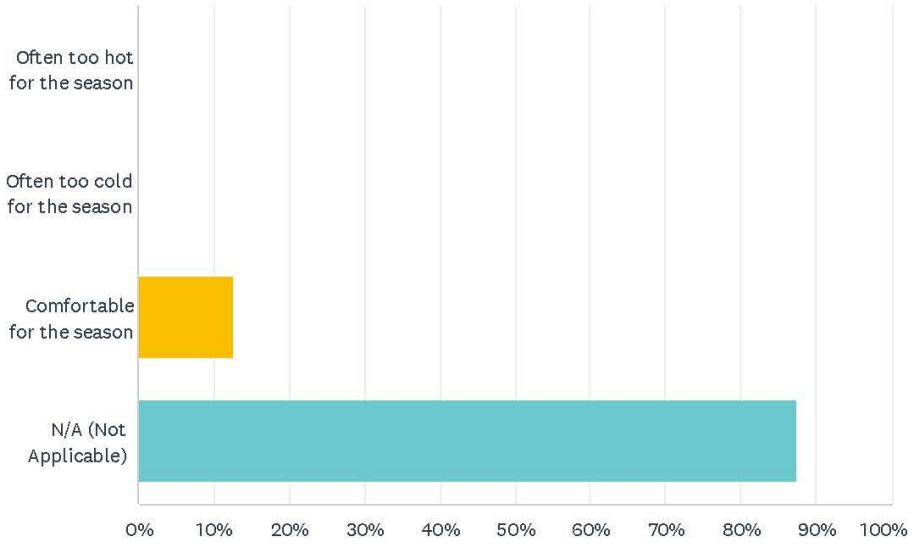
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	50.00%	4
No	0.00%	0
N/A (Not Applicable)	50.00%	4
TOTAL		8

Q15 The temperature of the facilities in summer or fall is..... (Not Applicable (N/A) for those who have not physically attended classes on campus)

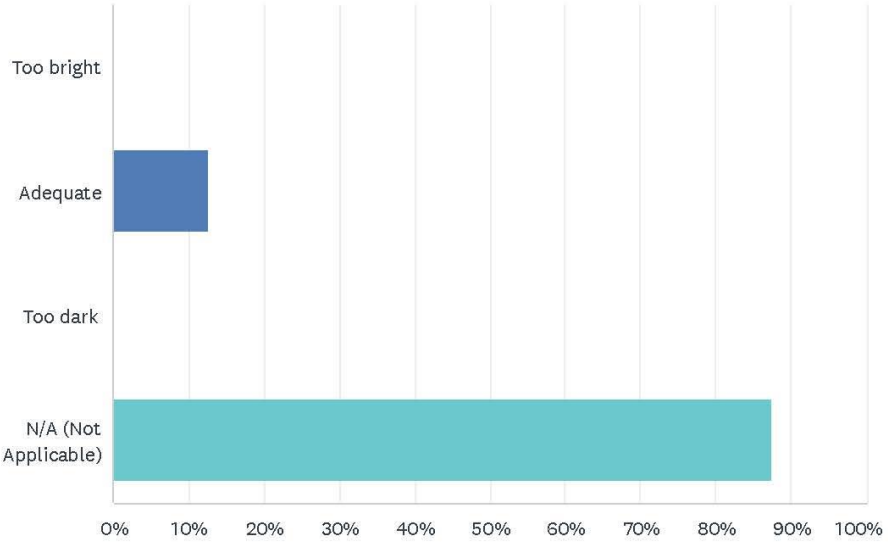
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Often too hot for the season	0.00%	0
Often too cold for the season	0.00%	0
Comfortable for the season	12.50%	1
N/A (Not Applicable)	87.50%	7
TOTAL		8

Q16 The lighting in the facilities is..... (Not Applicable (N/A) for those who have not physically attended classes on campus)

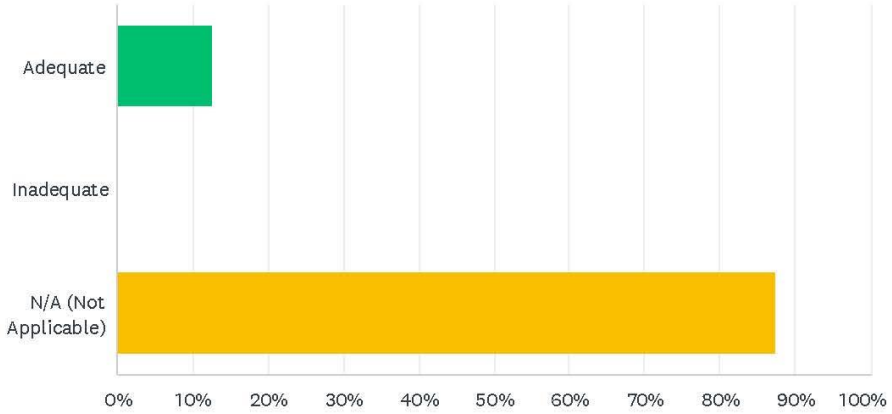
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Too bright	0.00%	0
Adequate	12.50%	1
Too dark	0.00%	0
N/A (Not Applicable)	87.50%	7
TOTAL		8

Q17 The chairs/tables/desks are? (Not Applicable (N/A) for those who have not physically attended classes on campus)

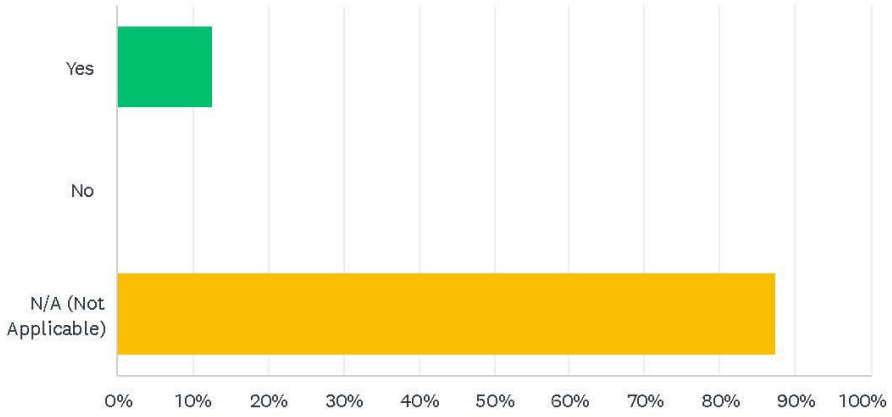
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Adequate	12.50%	1
Inadequate	0.00%	0
N/A (Not Applicable)	87.50%	7
TOTAL		8

Q18 Is there enough space for you to do your work in class? (Not Applicable (N/A) for those who have not physically attended classes on campus)

Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	12.50%	1
No	0.00%	0
N/A (Not Applicable)	87.50%	7
TOTAL		8

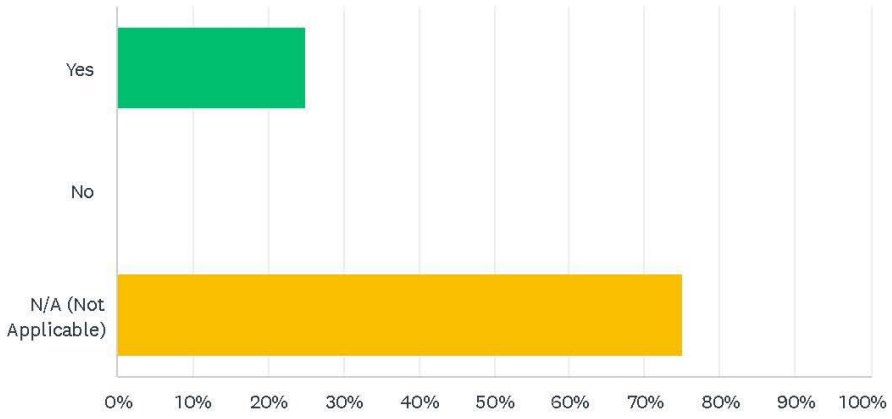
Q19 Please elaborate on your responses and include any additional facilities-related comments: (Not Applicable (N/A) for those who have not physically attended classes on campus)

Answered: 2 Skipped: 6

#	RESPONSES	DATE
1	N/A	11/16/2020 1:17 PM
2	N/A	11/16/2020 1:12 PM

Q20 Did the course/program provide the necessary equipment?

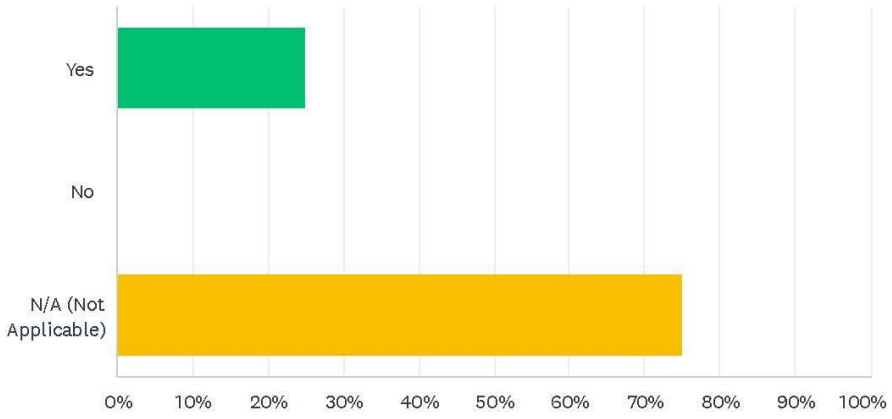
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	25.00%	2
No	0.00%	0
N/A (Not Applicable)	75.00%	6
TOTAL		8

Q21 Is enough time on equipment allowed for each student?

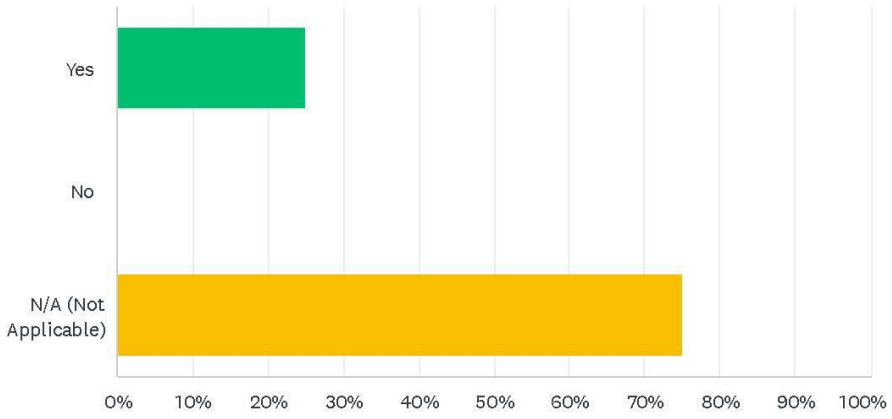
Answered: 8 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	25.00%	2
No	0.00%	0
N/A (Not Applicable)	75.00%	6
TOTAL		8

Q22 Is equipment current?

Answered: 8 Skipped: 0



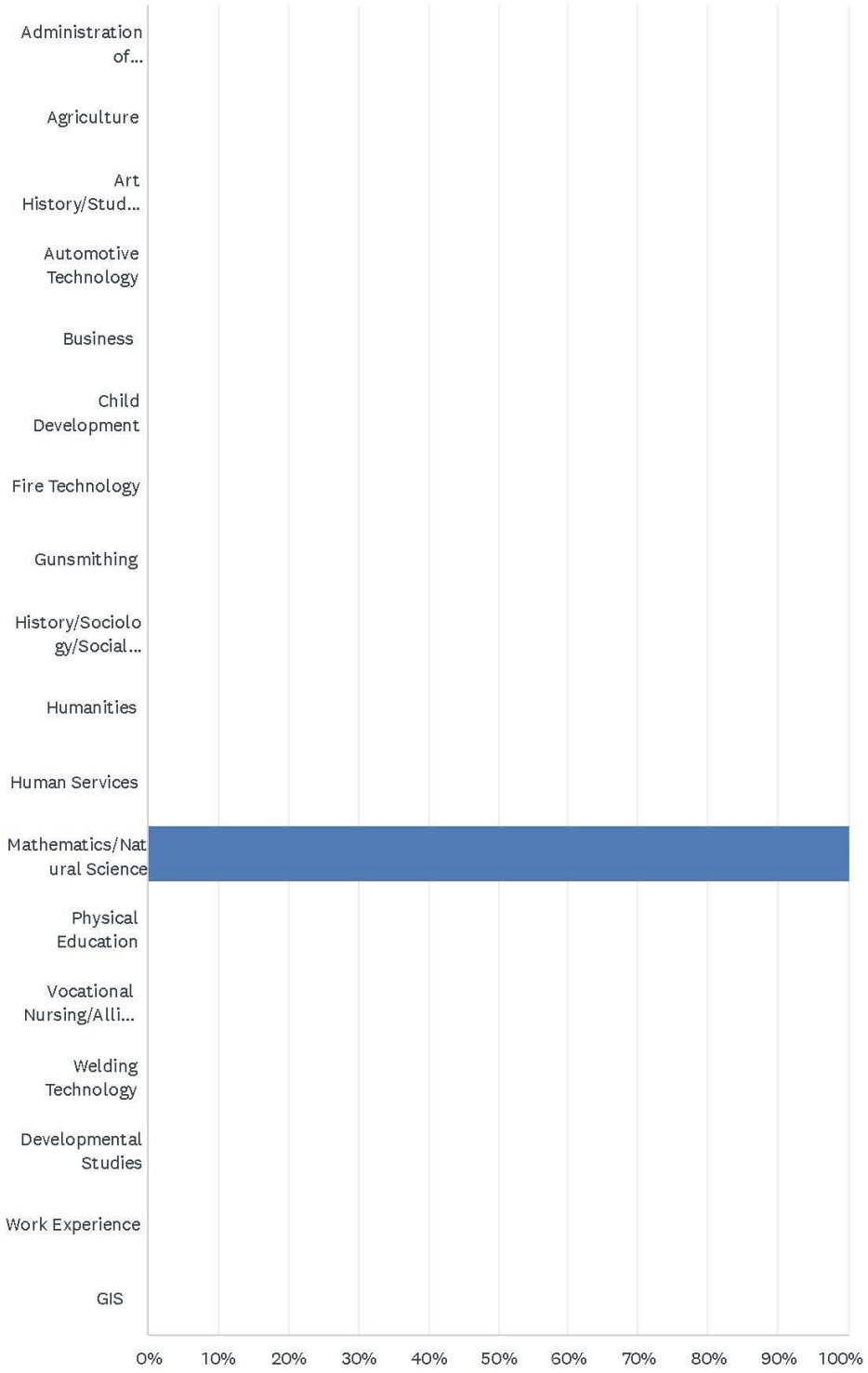
ANSWER CHOICES	RESPONSES	
Yes	25.00%	2
No	0.00%	0
N/A (Not Applicable)	75.00%	6
TOTAL		8

Q1 Course Number (Examples: AGR-1-M0095, MUS-12-K0669, etc...):

Answered: 3 Skipped: 0

Q2 Name of Program: (Select only one option)

Answered: 3 Skipped: 0


Administration of...
Agriculture
Art History/Stud...
Automotive Technology
Business
Child Development
Fire Technology
Gunsmithing
History/Sociology/Social...
Humanities
Human Services
Mathematics/Natural Science
Physical Education
Vocational Nursing/Alli...
Welding Technology
Developmental Studies
Work Experience
GIS
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

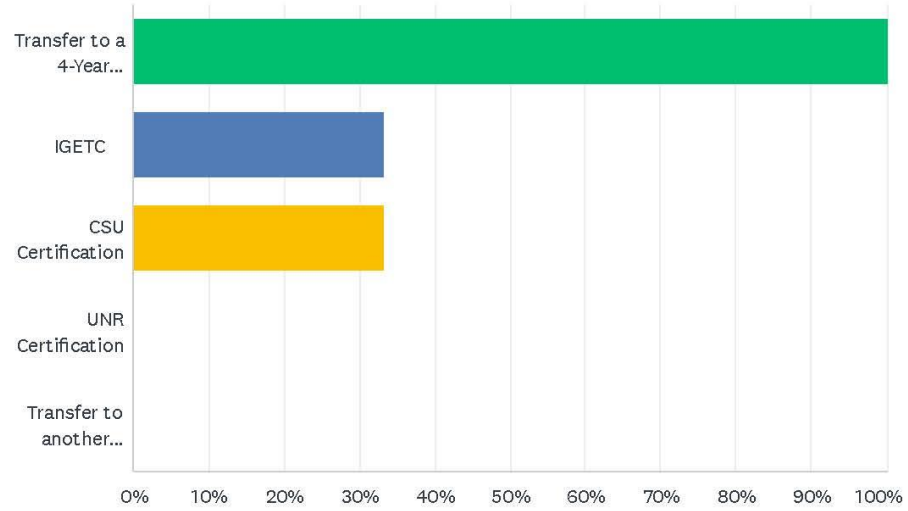
ANSWER CHOICES	RESPONSES	
Administration of Justice/Correctional Science	0.00%	0
Agriculture	0.00%	0
Art History/Studio Art	0.00%	0
Automotive Technology	0.00%	0
Business	0.00%	0
Child Development	0.00%	0
Fire Technology	0.00%	0
Gunsmithing	0.00%	0
History/Sociology/Social Science/Psychology	0.00%	0
Humanities	0.00%	0
Human Services	0.00%	0
Mathematics/Natural Science	100.00%	3
Physical Education	0.00%	0
Vocational Nursing/Allied Health	0.00%	0
Welding Technology	0.00%	0
Developmental Studies	0.00%	0
Work Experience	0.00%	0
GIS	0.00%	0
TOTAL		3

Q3 Course Name/Title:

Answered: 3 Skipped: 0

Q4 Educational Goal: In relation to your general educational goal(s),what is your educational objective at Lassen Community (Check all that apply):

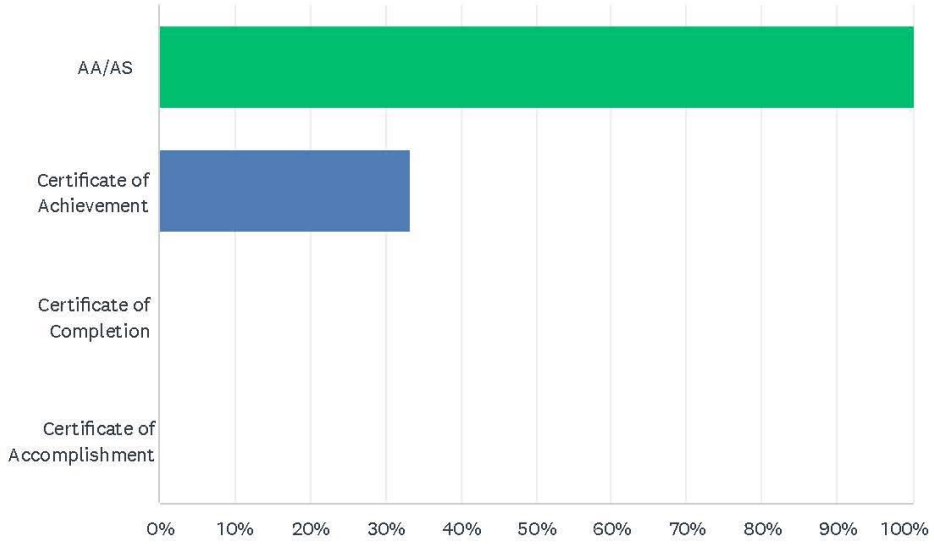
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Transfer to a 4-Year Institution	100.00%	3
IGETC	33.33%	1
CSU Certification	33.33%	1
UNR Certification	0.00%	0
Transfer to another community College	0.00%	0
Total Respondents: 3		

Q5 Educational Goal: In relation to your degree or certificate goal(s),what is your educational objective at Lassen Community (Check all that apply):

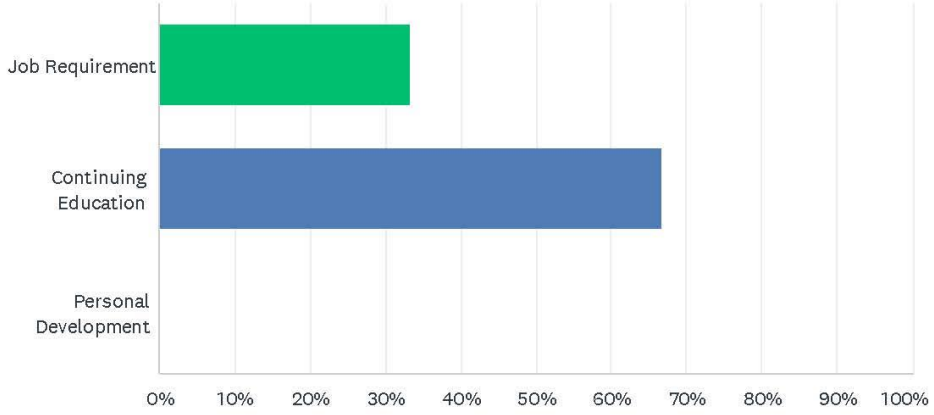
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
AA/AS	100.00%	3
Certificate of Achievement	33.33%	1
Certificate of Completion	0.00%	0
Certificate of Accomplishment	0.00%	0
Total Respondents: 3		

Q6 Educational Goal: How would you describe your general interest for achieving your educational goal(s) at Lassen Community, (Check all that apply):

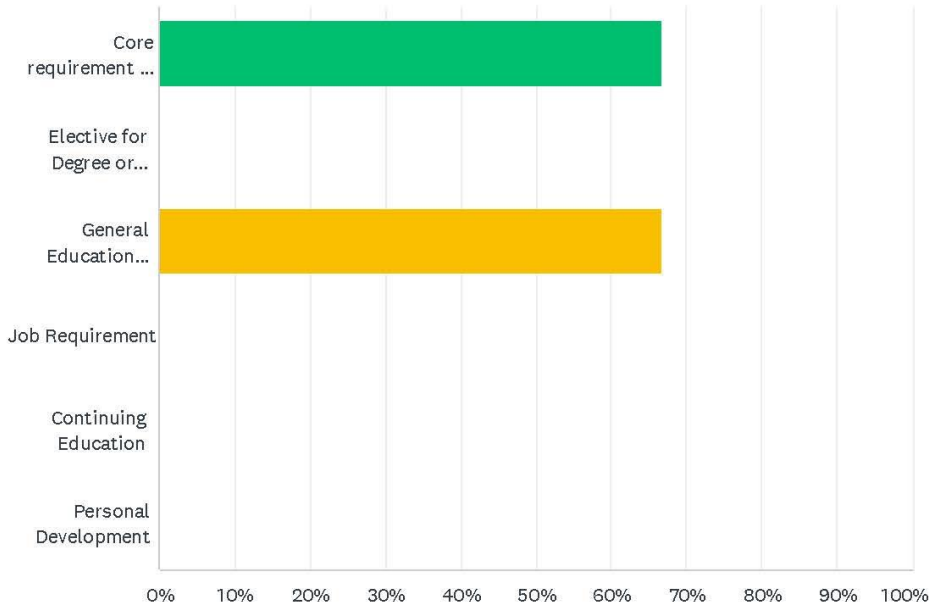
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Job Requirement	33.33%	1
Continuing Education	66.67%	2
Personal Development	0.00%	0
Total Respondents: 3		

Q7 You need this course: Why are you taking this course?

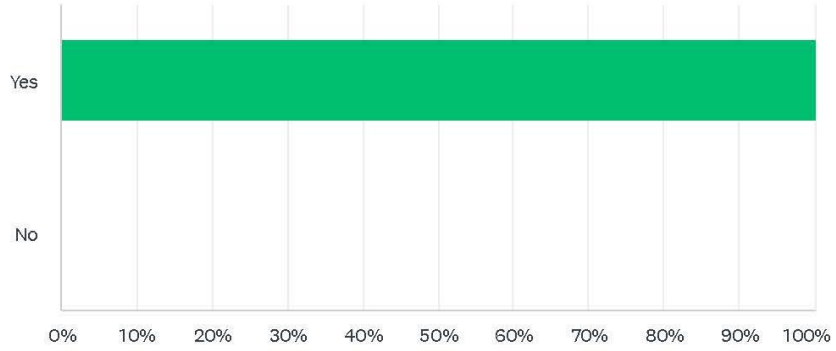
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Core requirement for degree or certificate	66.67%	2
Elective for Degree or Certificate	0.00%	0
General Education course for degree or transfer	66.67%	2
Job Requirement	0.00%	0
Continuing Education	0.00%	0
Personal Development	0.00%	0
Total Respondents: 3		

Q8 Does the course content reasonably compare with the catalog/schedule description?

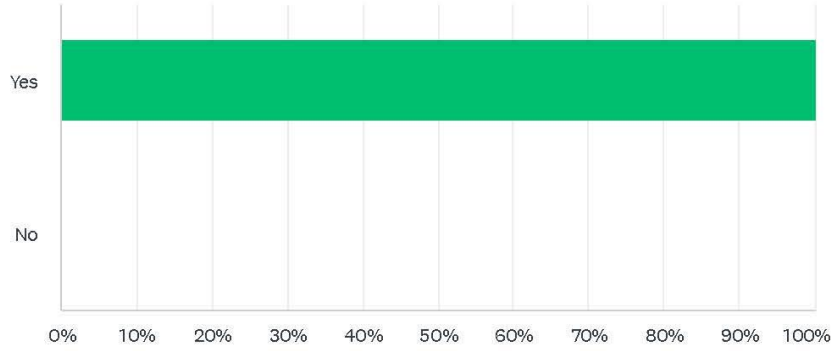
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	100.00%	3
No	0.00%	0
TOTAL		3

Q9 Did the catalog clearly explain the order in which the courses in this program should be taken?

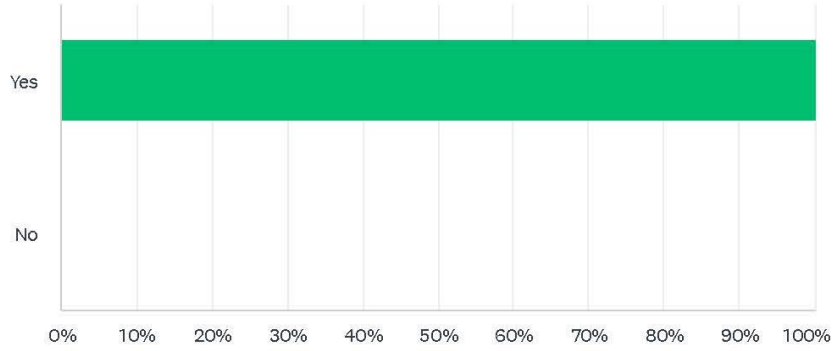
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	100.00%	3
No	0.00%	0
TOTAL		3

Q10 Was any cost for this course/program, beyond registration and books, clearly identified in the catalog?

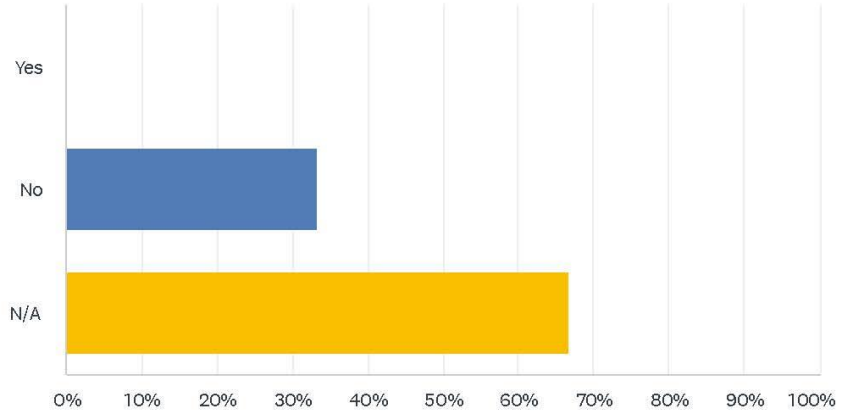
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	100.00%	3
No	0.00%	0
TOTAL		3

Q11 Did the instructors use the required textbooks in the program?

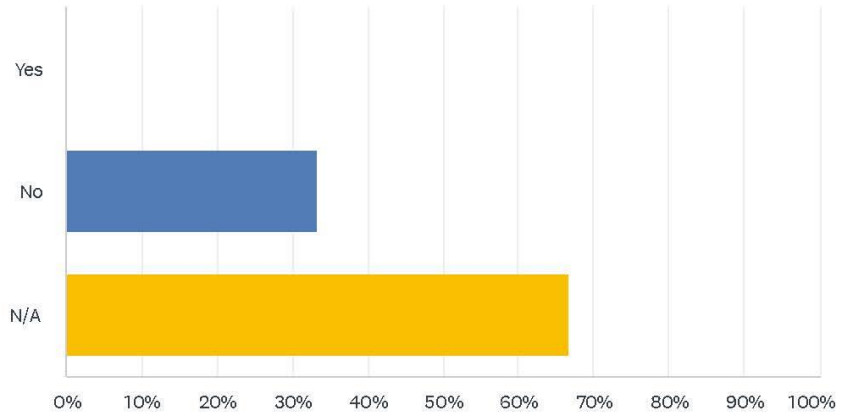
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	33.33%	1
N/A	66.67%	2
TOTAL		3

Q12 Are the textbooks purchased for this course/program useful to you?

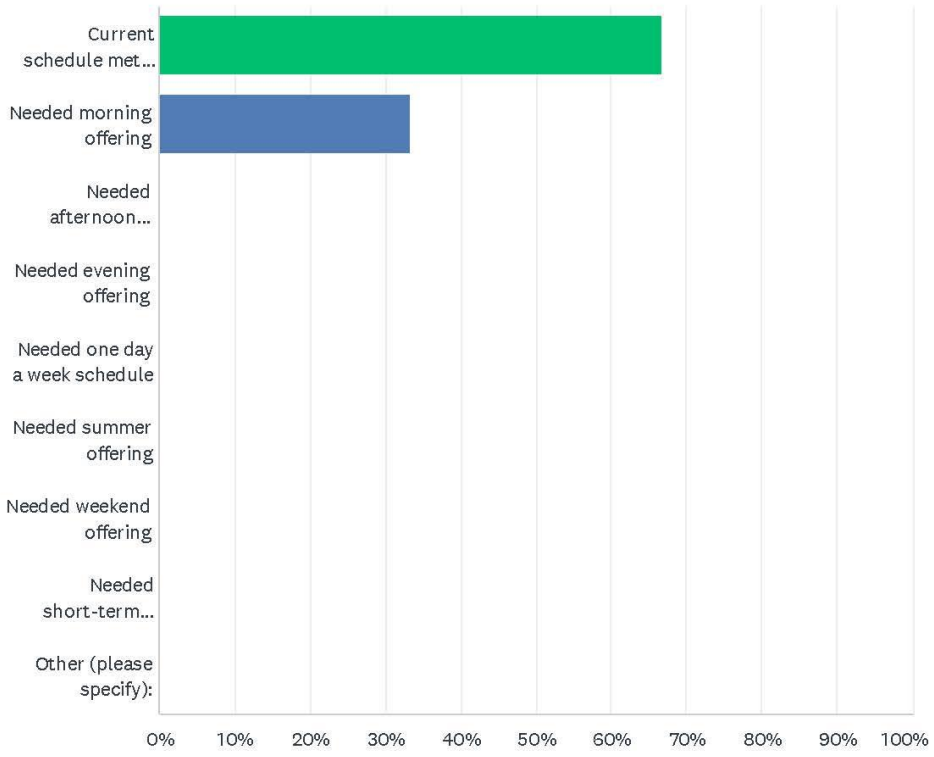
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	33.33%	1
N/A	66.67%	2
TOTAL		3

Q13 Scheduling: Did the scheduling of the course meet your needs?

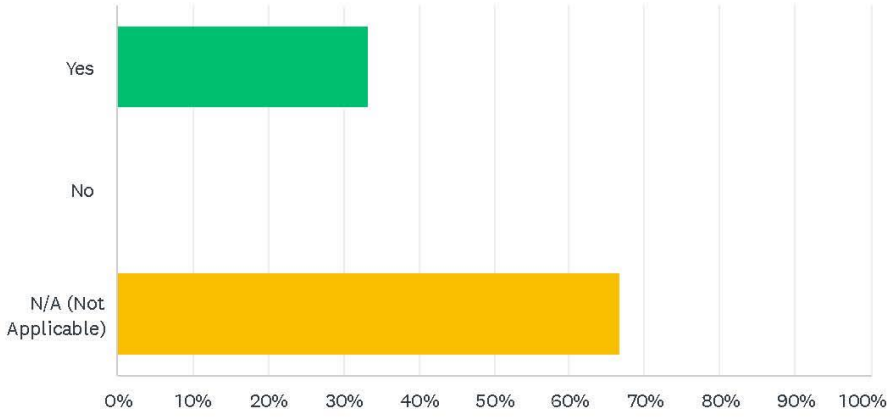
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Current schedule met my needs	66.67%	2
Needed morning offering	33.33%	1
Needed afternoon offering	0.00%	0
Needed evening offering	0.00%	0
Needed one day a week schedule	0.00%	0
Needed summer offering	0.00%	0
Needed weekend offering	0.00%	0
Needed short-term (less than semester) offering	0.00%	0
Other (please specify):	0.00%	0
TOTAL		3

Q14 I was provided with reasonable access to the facilities? (Not Applicable (N/A) for those who have not physically attended classes on campus)

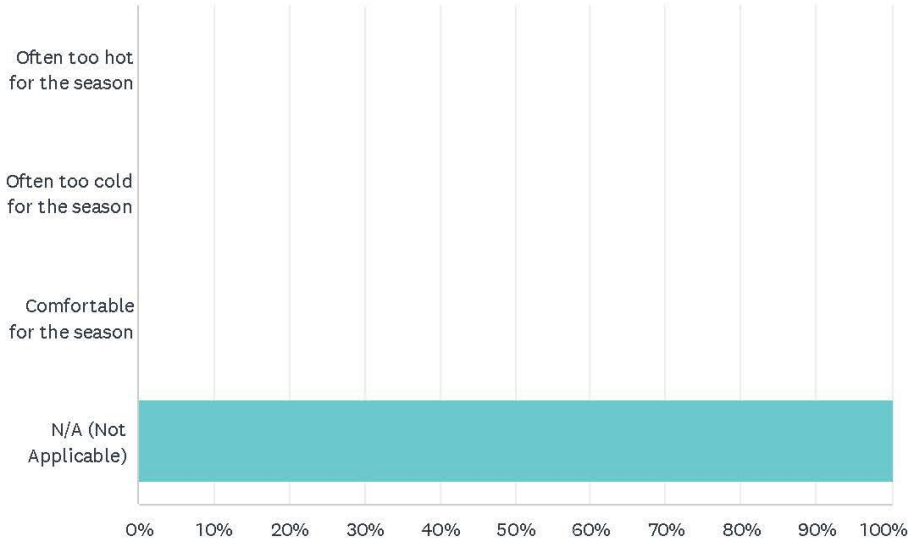
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	33.33%	1
No	0.00%	0
N/A (Not Applicable)	66.67%	2
TOTAL		3

Q15 The temperature of the facilities in summer or fall is..... (Not Applicable (N/A) for those who have not physically attended classes on campus)

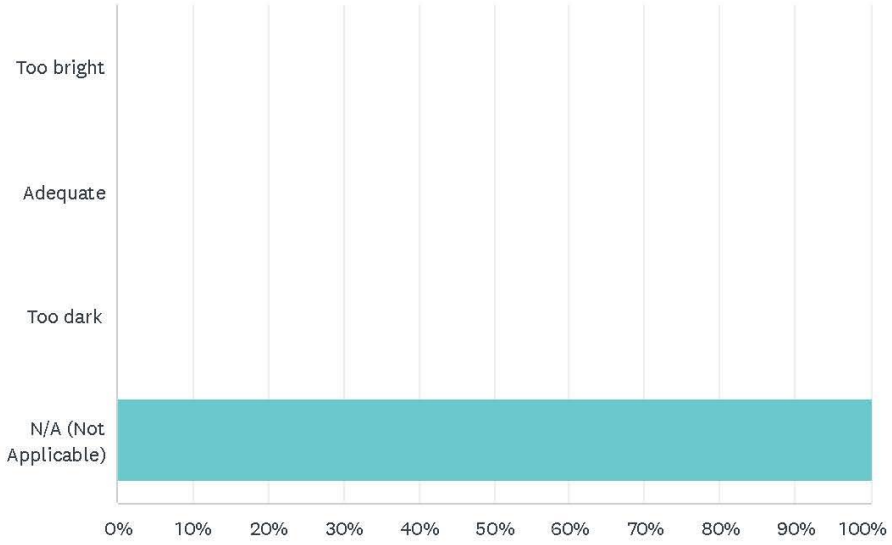
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Often too hot for the season	0.00%	0
Often too cold for the season	0.00%	0
Comfortable for the season	0.00%	0
N/A (Not Applicable)	100.00%	3
TOTAL		3

Q16 The lighting in the facilities is..... (Not Applicable (N/A) for those who have not physically attended classes on campus)

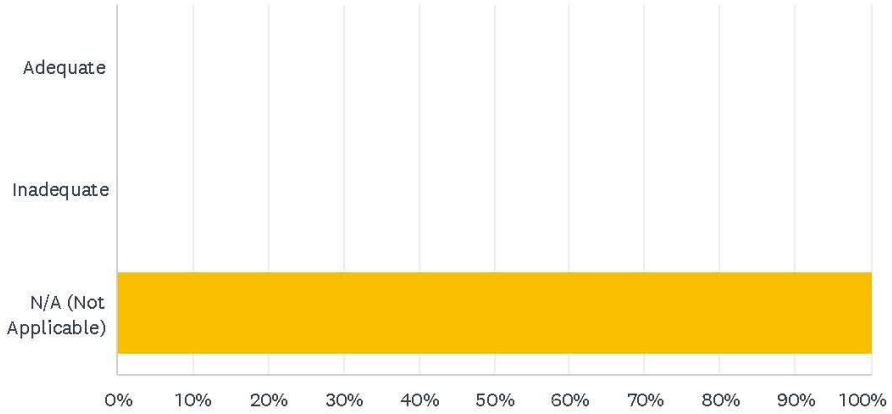
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Too bright	0.00%	0
Adequate	0.00%	0
Too dark	0.00%	0
N/A (Not Applicable)	100.00%	3
TOTAL		3

Q17 The chairs/tables/desks are? (Not Applicable (N/A) for those who have not physically attended classes on campus)

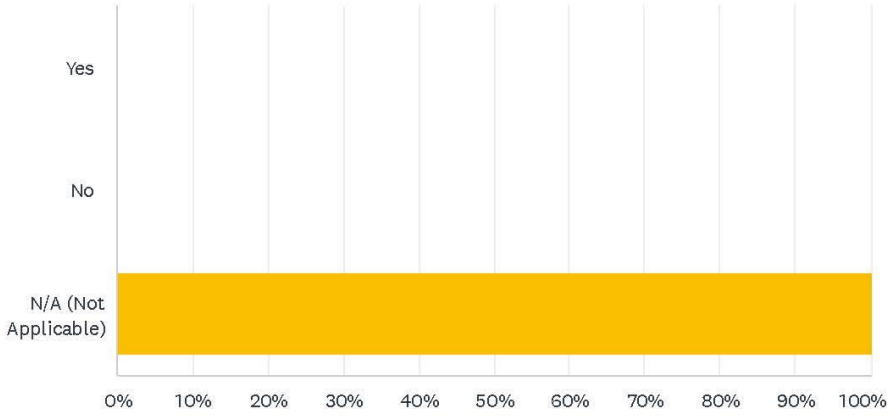
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Adequate	0.00%	0
Inadequate	0.00%	0
N/A (Not Applicable)	100.00%	3
TOTAL		3

Q18 Is there enough space for you to do your work in class? (Not Applicable (N/A) for those who have not physically attended classes on campus)

Answered: 3 Skipped: 0



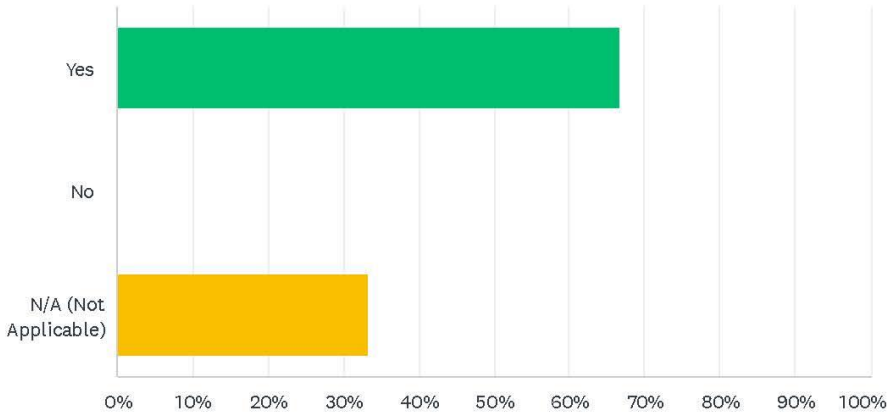
ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	0.00%	0
N/A (Not Applicable)	100.00%	3
TOTAL		3

Q19 Please elaborate on your responses and include any additional facilities-related comments: (Not Applicable (N/A) for those who have not physically attended classes on campus)

Answered: 2 Skipped: 1

Q20 Did the course/program provide the necessary equipment?

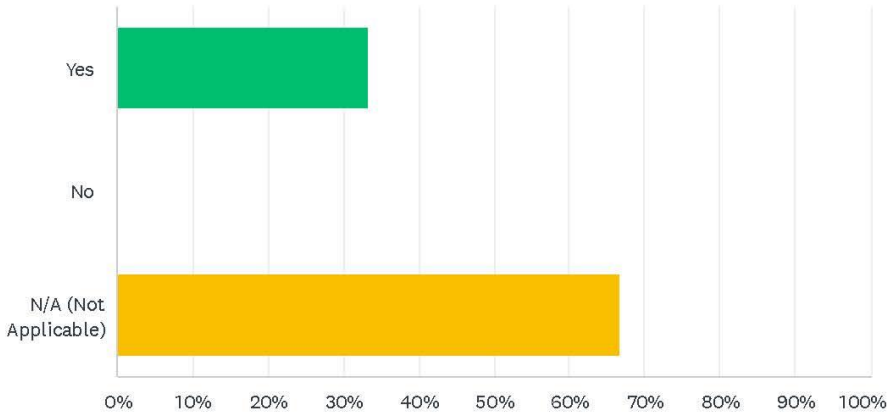
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	66.67%	2
No	0.00%	0
N/A (Not Applicable)	33.33%	1
TOTAL		3

Q21 Is enough time on equipment allowed for each student?

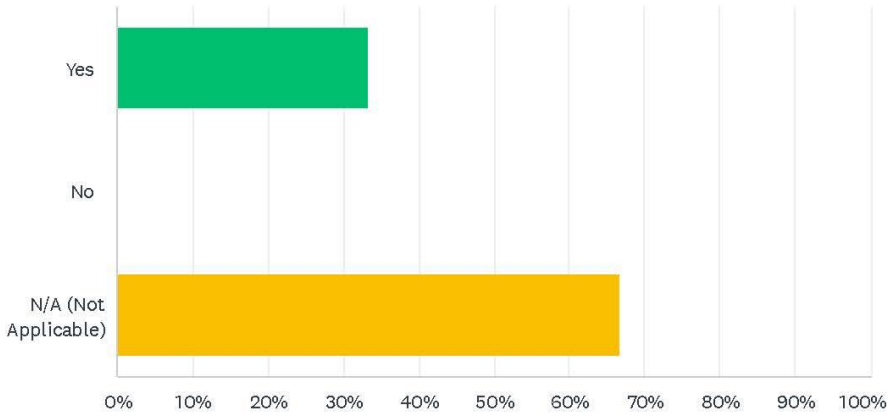
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	33.33%	1
No	0.00%	0
N/A (Not Applicable)	66.67%	2
TOTAL		3

Q22 Is equipment current?

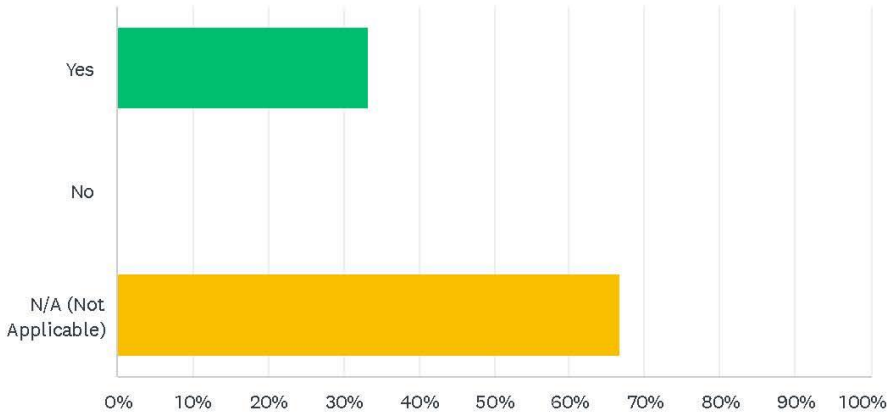
Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	33.33%	1
No	0.00%	0
N/A (Not Applicable)	66.67%	2
TOTAL		3

Q23 Is equipment generally in good operation condition?

Answered: 3 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	33.33%	1
No	0.00%	0
N/A (Not Applicable)	66.67%	2
TOTAL		3

Q24 Describe how this course/program could be improved to better meet the needs of the students at Lassen Community College:

Answered: 2 Skipped: 1

Q25 Please provide any additional comments on the course or program:

Answered: 1 Skipped: 2

Q1 Course Number (Examples: AGR-1-M0095, MUS-12-K0669, etc...):

Answered: 71 Skipped: 0

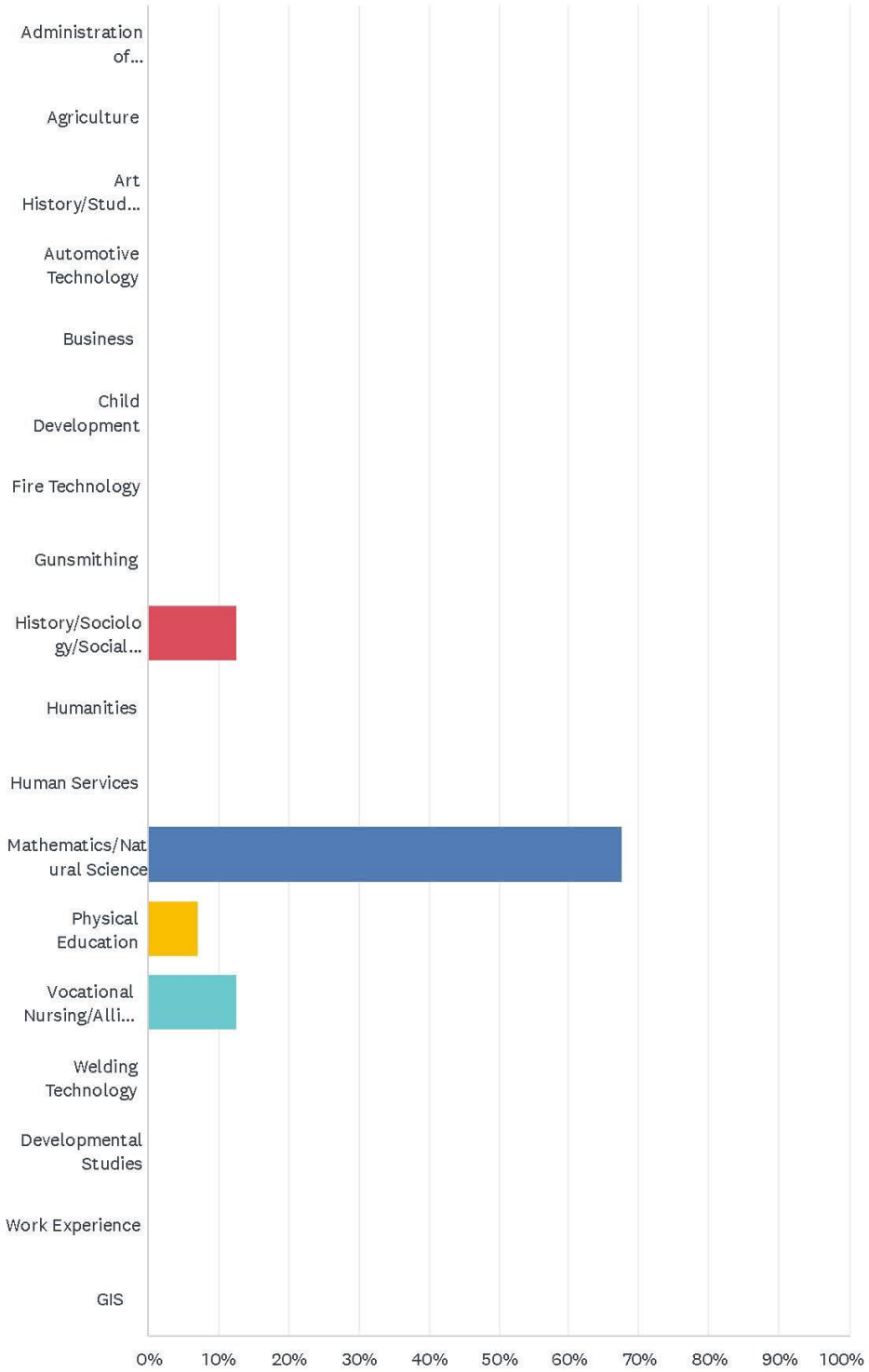
#	RESPONSES	DATE
1	BIOL-20-Y0082	10/14/2021 4:20 PM
2	BIOL-25-Y1115	10/14/2021 4:19 PM
3	BIOL-25-Y1115	10/14/2021 4:18 PM
4	BIOL-25-Y1115	10/14/2021 4:17 PM
5	BIOL-25-Y1115	10/14/2021 4:16 PM
6	BIOL-25-Y1115	10/14/2021 4:15 PM
7	BIOL-25-Y1115	10/14/2021 4:15 PM
8	BIOL-25-Y1115	10/14/2021 4:14 PM
9	BIOL-25-Y1115	10/14/2021 4:14 PM
10	BIOL-25-Y1115	10/14/2021 4:13 PM
11	BIOL-25-Y1115	10/14/2021 4:13 PM
12	BIOL-25-Y1115	10/14/2021 4:12 PM
13	BIOL-25-Y1115	10/14/2021 4:11 PM
14	BIOL-25-Y1115	10/14/2021 4:11 PM
15	BIOL-25-Y1115	10/14/2021 4:10 PM
16	BIOL-25-Y1115	10/14/2021 4:09 PM
17	BIOL-20-Y0082	10/14/2021 4:08 PM
18	BIOL-25-Y1211	10/14/2021 4:07 PM
19	BIOL-25-Y1211	10/14/2021 4:06 PM
20	BIOL-25-Y1211	10/14/2021 4:06 PM
21	BIOL-25-Y1211	10/14/2021 4:04 PM
22	BIOL-25-Y1211	10/14/2021 4:04 PM
23	BIOL-25-Y1211	10/14/2021 4:03 PM
24	BIOL-25-Y1211	10/14/2021 4:02 PM
25	BIOL-25-Y1211	10/14/2021 4:02 PM
26	BIOL-25-Y1211	10/14/2021 4:01 PM
27	BIOL-25-Y1211	10/14/2021 4:01 PM
28	BIOL-25-Y1211	10/14/2021 4:00 PM
29	Math-40-N0783	10/7/2021 10:35 AM
30	PHYS-2A-N0761	10/7/2021 9:54 AM
31	BIO 32-Y1188	10/7/2021 8:22 AM

32	Bio32-y1188	10/7/2021 8:14 AM
33	BIOL-32L-Y1188	10/7/2021 8:12 AM
34	BIOL32-Y1188	10/7/2021 8:11 AM
35	BIO-32	10/7/2021 8:11 AM
36	Biol 32-y1147	10/7/2021 8:10 AM
37	BIOL32-Y1188	10/7/2021 8:10 AM
38	BIO-32L-Y1147	10/7/2021 8:08 AM
39	chem 1a-yo105	10/4/2021 7:24 PM
40	Biol-20-Y0082	10/1/2021 1:21 PM
41	Biol-20y0082	10/1/2021 1:20 PM
42	Biol-20-Y0082	10/1/2021 1:20 PM
43	Biol-20-y0082	10/1/2021 1:20 PM
44	Biol-20-Y0082	10/1/2021 1:19 PM
45	Biol-20-y0082	10/1/2021 1:19 PM
46	BIOL-20-y0082	10/1/2021 1:19 PM
47	BIOL-20-y0082	10/1/2021 1:19 PM
48	BIOL-20-Y0082	10/1/2021 1:18 PM
49	Biol-20-y0082	10/1/2021 1:18 PM
50	Biol-20-y0082	10/1/2021 1:18 PM
51	Biol-20-y0082	10/1/2021 1:18 PM
52	BIOL-20-Y0082	10/1/2021 1:18 PM
53	Biol20y0082	10/1/2021 1:18 PM
54	Math 7	9/30/2021 10:05 AM
55	CHEM-1A-Y0105	9/29/2021 10:07 PM
56	CHEM-1A-Y0105.2021FA	9/29/2021 9:00 PM
57	BIOL-25-1249	9/29/2021 8:25 PM
58	Biol25-Y1249	9/29/2021 6:59 PM
59	Biol25-Y1249	9/29/2021 6:59 PM
60	Biol25-Y1249	9/29/2021 6:53 PM
61	BIOL-25-Y1249.2021FA	9/29/2021 6:47 PM
62	BIOL-25-Y1249	9/29/2021 6:47 PM
63	Bio25-Y1249	9/29/2021 6:45 PM
64	BIOL25-Y1249	9/29/2021 6:44 PM
65	BIOL-25-Y1249	9/29/2021 6:43 PM
66	BIOL-25-Y1249.2021FA	9/29/2021 6:42 PM
67	Bio 25	9/29/2021 6:42 PM
68	BIOl-25-Y1249	9/29/2021 6:42 PM
69	Math-7-N1112	9/22/2021 3:58 PM

70	BIOL-25-Y1211	9/17/2021 9:46 AM
71	Bio-20	9/16/2021 1:28 PM

Q2 Name of Program: (Select only one option)

Answered: 71 Skipped: 0


Administration of...
Agriculture
Art History/Stud...
Automotive Technology
Business
Child Development
Fire Technology
Gunsmithing
History/Sociology/Social...
Humanities
Human Services
Mathematics/Natural Science
Physical Education
Vocational Nursing/Alli...
Welding Technology
Developmental Studies
Work Experience
GIS
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%

ANSWER CHOICES	RESPONSES	
Administration of Justice/Correctional Science	0.00%	0
Agriculture	0.00%	0
Art History/Studio Art	0.00%	0
Automotive Technology	0.00%	0
Business	0.00%	0
Child Development	0.00%	0
Fire Technology	0.00%	0
Gunsmithing	0.00%	0
History/Sociology/Social Science/Psychology	12.68%	9
Humanities	0.00%	0
Human Services	0.00%	0
Mathematics/Natural Science	67.61%	48
Physical Education	7.04%	5
Vocational Nursing/Allied Health	12.68%	9
Welding Technology	0.00%	0
Developmental Studies	0.00%	0
Work Experience	0.00%	0
GIS	0.00%	0
TOTAL		71

Q3 Course Name/Title:

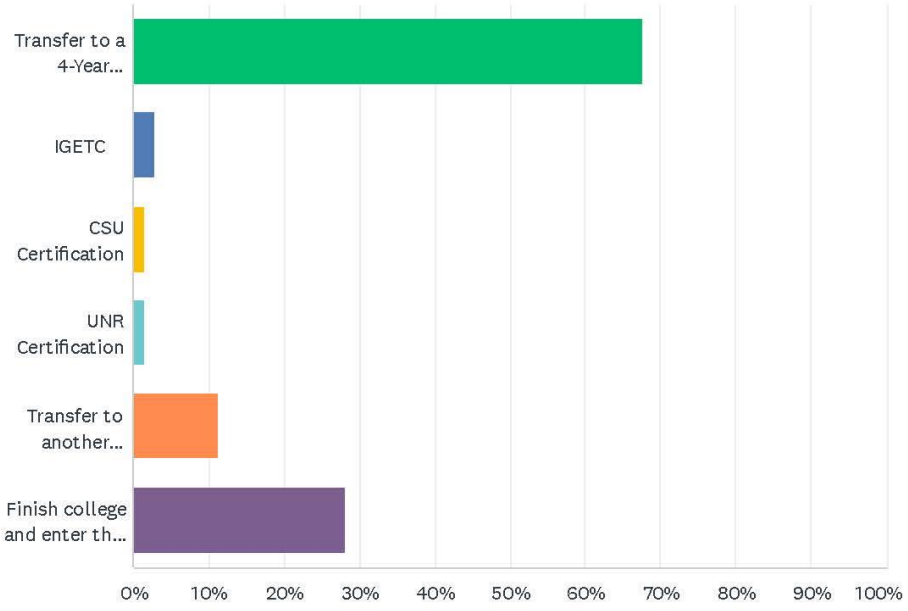
Answered: 71 Skipped: 0

#	RESPONSES	DATE
1	Microbiology	10/14/2021 4:20 PM
2	Human Anatomy and Physiology	10/14/2021 4:19 PM
3	Human Anatomy and Physiology	10/14/2021 4:18 PM
4	Biology: Anatomy and Physiology	10/14/2021 4:17 PM
5	Human Anatomy and Physiology 1	10/14/2021 4:16 PM
6	Human Anatomy and Physiology	10/14/2021 4:15 PM
7	Biology: Anatomy and Physiology	10/14/2021 4:15 PM
8	Biology: Anatomy and Physiology	10/14/2021 4:14 PM
9	Human Anatomy and Physiology	10/14/2021 4:14 PM
10	ANATOMY AND PHYSIOLOGY	10/14/2021 4:13 PM
11	Human Anatomy and Physiology	10/14/2021 4:13 PM
12	Human and Physiology 1	10/14/2021 4:12 PM
13	Human Anatomy and Physiology 1	10/14/2021 4:11 PM
14	Human Anatomy and Physiology 1	10/14/2021 4:11 PM
15	Human Anatomy and Physiology 1	10/14/2021 4:10 PM
16	Human Anatomy and Physiology 1	10/14/2021 4:09 PM
17	Microbiology	10/14/2021 4:08 PM
18	Human Anatomy and Physiology 1	10/14/2021 4:07 PM
19	Biology: Anatomy and Physiology	10/14/2021 4:06 PM
20	Human Anatomy and Physiology	10/14/2021 4:06 PM
21	Human Anatomy and Physiology 1	10/14/2021 4:04 PM
22	Human Anatomy and Physiology 1	10/14/2021 4:04 PM
23	Biol 25	10/14/2021 4:03 PM
24	Human Anatomy and Physiology 1	10/14/2021 4:02 PM
25	Human Anatomy and Physiology 1	10/14/2021 4:02 PM
26	Human Anatomy and Physiology 1	10/14/2021 4:01 PM
27	Human Anatomy and Physiology 1	10/14/2021 4:01 PM
28	Human Anatomy and Physiology 1	10/14/2021 4:00 PM
29	Elementary Statistics -2021FA	10/7/2021 10:35 AM
30	Physics 1	10/7/2021 9:54 AM
31	Biology	10/7/2021 8:22 AM
32	Bio32-y1188	10/7/2021 8:14 AM
33	Biology	10/7/2021 8:12 AM

34	Biology	10/7/2021 8:11 AM
35	Abnormal Psychology	10/7/2021 8:11 AM
36	Biology	10/7/2021 8:10 AM
37	BIOL 32	10/7/2021 8:10 AM
38	General Biology with Lab	10/7/2021 8:08 AM
39	General Chemistry 1A	10/4/2021 7:24 PM
40	Natural science	10/1/2021 1:21 PM
41	Micro biology 20	10/1/2021 1:20 PM
42	Microbiology	10/1/2021 1:20 PM
43	Microbiology	10/1/2021 1:20 PM
44	Microbiology	10/1/2021 1:19 PM
45	Microbiology	10/1/2021 1:19 PM
46	Microbiology	10/1/2021 1:19 PM
47	Microbiology	10/1/2021 1:19 PM
48	Microbiology	10/1/2021 1:18 PM
49	Microbiology	10/1/2021 1:18 PM
50	Microbiology	10/1/2021 1:18 PM
51	Microbiology	10/1/2021 1:18 PM
52	Microbiology	10/1/2021 1:18 PM
53	Bio 20 microbiology	10/1/2021 1:18 PM
54	Trig	9/30/2021 10:05 AM
55	General chemistry	9/29/2021 10:07 PM
56	CHEM-1A	9/29/2021 9:00 PM
57	Human Anatomy/Physiology I	9/29/2021 8:25 PM
58	allied health	9/29/2021 6:59 PM
59	Sports Nutrition	9/29/2021 6:59 PM
60	Human Anatomy and Physiology Part 1	9/29/2021 6:53 PM
61	Human Anatomy/Physiology 1	9/29/2021 6:47 PM
62	Human Anatomy and Physiology	9/29/2021 6:47 PM
63	Bio25 anatomy and physiology	9/29/2021 6:45 PM
64	BIOL25	9/29/2021 6:44 PM
65	Anatomy and physiology	9/29/2021 6:43 PM
66	Kinesiology	9/29/2021 6:42 PM
67	Bio 25	9/29/2021 6:42 PM
68	BIOL-25-Y1249	9/29/2021 6:42 PM
69	Math 7 Trigonometry with Math 167 lab	9/22/2021 3:58 PM
70	Human Anatomy/Physiology	9/17/2021 9:46 AM
71	Microbiology	9/16/2021 1:28 PM

Q4 Educational Goal: In relation to your general educational goal(s),what is your educational objective at Lassen Community (Check all that apply):

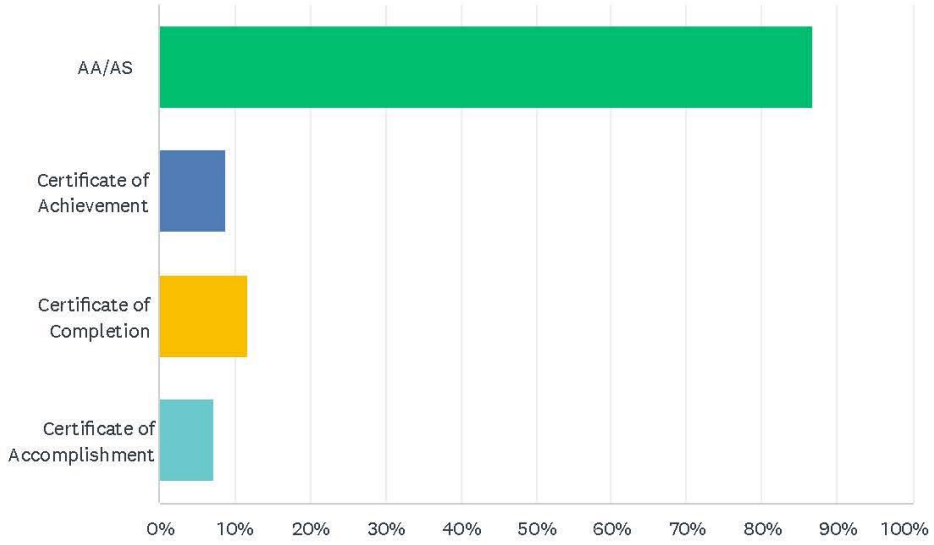
Answered: 71 Skipped: 0



ANSWER CHOICES	RESPONSES	
Transfer to a 4-Year Institution	67.61%	48
IGETC	2.82%	2
CSU Certification	1.41%	1
UNR Certification	1.41%	1
Transfer to another community College	11.27%	8
Finish college and enter the work force	28.17%	20
Total Respondents: 71		

Q5 Educational Goal: In relation to your degree or certificate goal(s),what is your educational objective at Lassen Community (Check all that apply):

Answered: 68 Skipped: 3



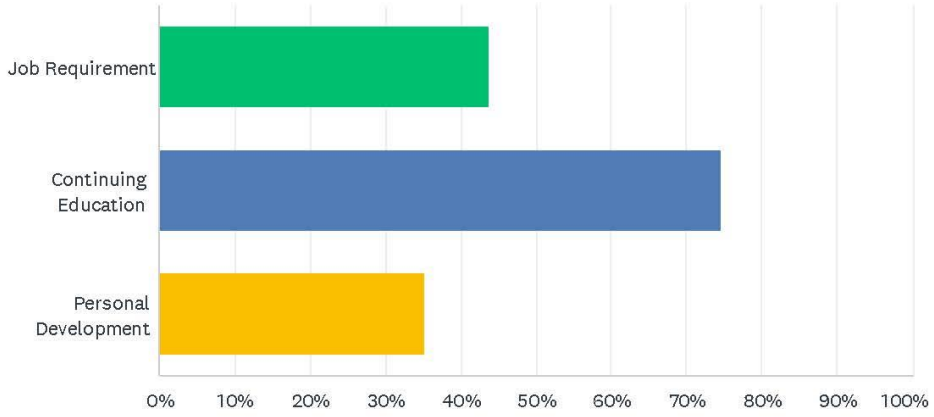
ANSWER CHOICES	RESPONSES	
AA/AS	86.76%	59
Certificate of Achievement	8.82%	6
Certificate of Completion	11.76%	8
Certificate of Accomplishment	7.35%	5
Total Respondents: 68		

#	PLEASE LIST THE TITLE OF THE DEGREE OR CERTIFICATE HERE:	DATE
1	Asso. In Biology	10/14/2021 4:18 PM
2	Nursing Program	10/14/2021 4:17 PM
3	Nursing Program	10/14/2021 4:16 PM
4	Asso. In Biology	10/14/2021 4:15 PM
5	A.S in psychology and sociology	10/14/2021 4:14 PM
6	AS UNIVERSITY STUDIES	10/14/2021 4:13 PM
7	Nursing Program	10/14/2021 4:13 PM
8	Nursing	10/14/2021 4:12 PM
9	A.S. in Nursing	10/14/2021 4:11 PM
10	Vocational Nursing/Registered Nurse	10/14/2021 4:10 PM
11	Vocational Nursing/Registered Nurse	10/14/2021 4:09 PM

12	Physical Education	10/14/2021 4:07 PM
13	Vocational Nursing/Registered Nurse	10/14/2021 4:06 PM
14	Natural sciences	10/14/2021 4:04 PM
15	Social science	10/14/2021 4:04 PM
16	Kinesiology	10/14/2021 4:02 PM
17	complete prerequisites	10/14/2021 4:01 PM
18	A.S. in Nursing	10/14/2021 4:01 PM
19	degree in liscnsed practical niursing	10/14/2021 4:00 PM
20	AA	10/7/2021 8:12 AM
21	History	10/7/2021 8:11 AM
22	Social science, history, psychology	10/7/2021 8:10 AM
23	Social sciences/ Psychology	10/7/2021 8:10 AM
24	Kinesiology	10/4/2021 7:24 PM
25	Registered Nurse	10/1/2021 1:21 PM
26	Associate of science in nursing	10/1/2021 1:20 PM
27	Nursing	10/1/2021 1:20 PM
28	Allied health	10/1/2021 1:20 PM
29	Vocational or Registered Nursing	10/1/2021 1:19 PM
30	Dental hygiene prerequisites	10/1/2021 1:19 PM
31	RN BSN upgrade	10/1/2021 1:19 PM
32	Animal Science Degree for transfer	10/1/2021 1:19 PM
33	Registered Nurse	10/1/2021 1:18 PM
34	BA	10/1/2021 1:18 PM
35	Vocational Nurse	10/1/2021 1:18 PM
36	Nutrition and Dietetics	9/29/2021 6:53 PM
37	LVN	9/29/2021 6:45 PM
38	Lvn	9/29/2021 6:44 PM
39	CNA, LVN, RN	9/29/2021 6:43 PM
40	Kinesiology Degree	9/29/2021 6:42 PM
41	30 credits done to graduate high school with a year of college already done	9/22/2021 3:58 PM
42	Allied health	9/16/2021 1:28 PM

Q6 Educational Goal: How would you describe your general interest for achieving your educational goal(s) at Lassen Community, (Check all that apply):

Answered: 71 Skipped: 0

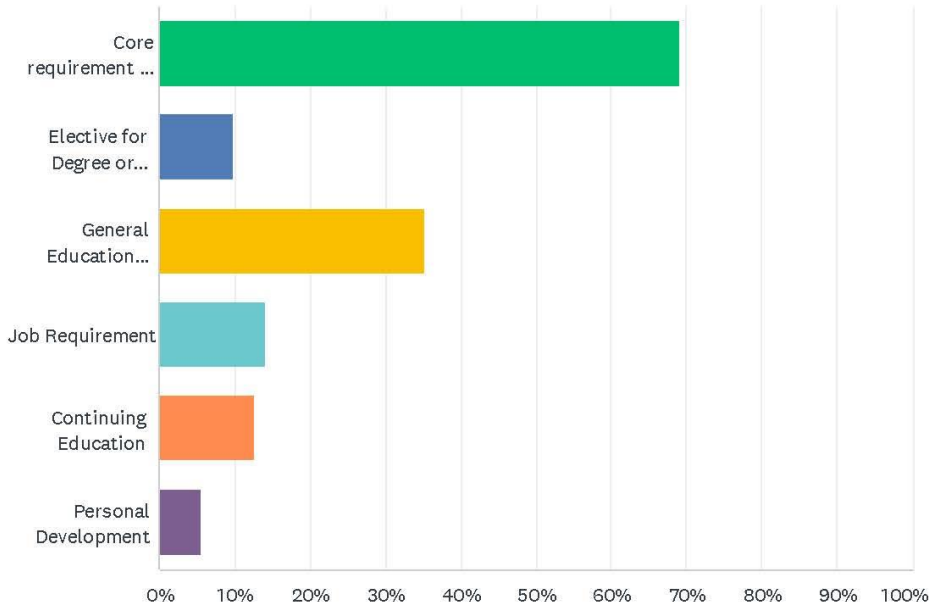


ANSWER CHOICES	RESPONSES	
Job Requirement	43.66%	31
Continuing Education	74.65%	53
Personal Development	35.21%	25
Total Respondents: 71		

#	OTHER (PLEASE DESCRIBE):	DATE
1	I PLAN TO TRANSFER TO A 4 YEAR UNIVERSITY	10/14/2021 4:13 PM
2	prerequisite class for other program	10/14/2021 4:01 PM
3	Nursing career	10/1/2021 1:19 PM
4	It would help me in soccer	9/29/2021 6:59 PM

Q7 You need this course: Why are you taking this course?

Answered: 71 Skipped: 0

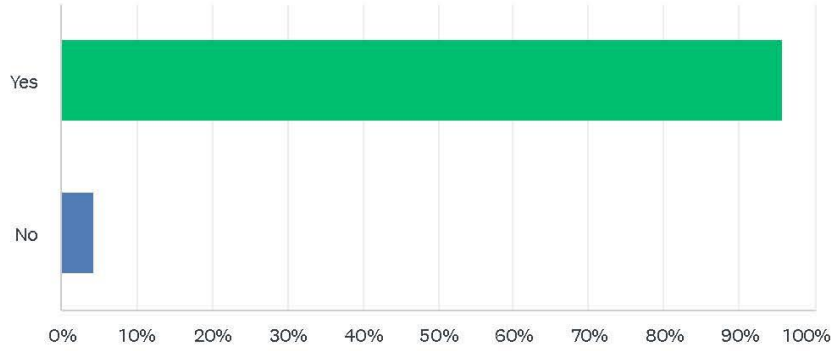


ANSWER CHOICES	RESPONSES	
Core requirement for degree or certificate	69.01%	49
Elective for Degree or Certificate	9.86%	7
General Education course for degree or transfer	35.21%	25
Job Requirement	14.08%	10
Continuing Education	12.68%	9
Personal Development	5.63%	4
Total Respondents: 71		

#	OTHER (PLEASE DESCRIBE):	DATE
1	My final prerequiste course for physical therapy assistant program	10/14/2021 4:01 PM

Q8 Does the course content reasonably compare with the catalog/schedule description?

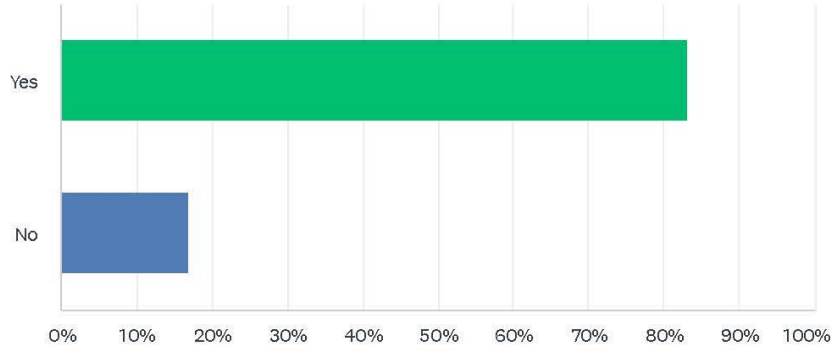
Answered: 71 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	95.77%	68
No	4.23%	3
TOTAL		71

Q9 Did the catalog clearly explain the order in which the courses in this program should be taken?

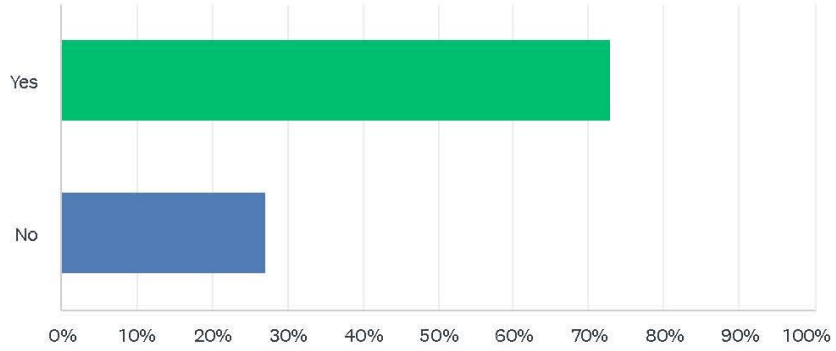
Answered: 71 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	83.10%	59
No	16.90%	12
TOTAL		71

Q10 Was any cost for this course/program, beyond registration and books, clearly identified in the catalog?

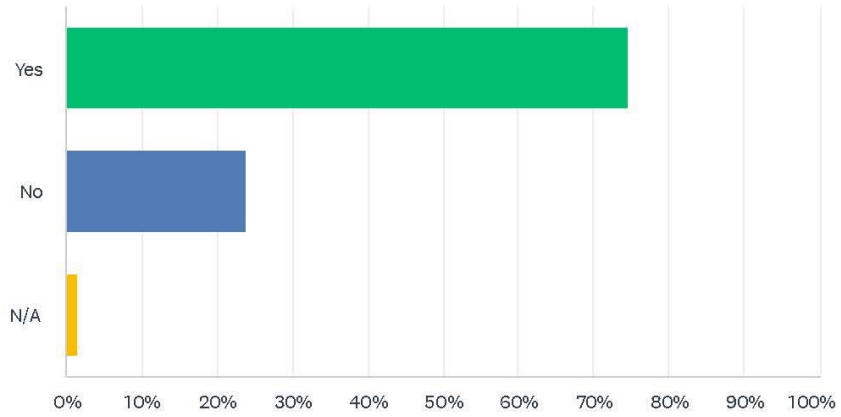
Answered: 70 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	72.86%	51
No	27.14%	19
TOTAL		70

Q11 Did the instructors use the required textbooks in the program?

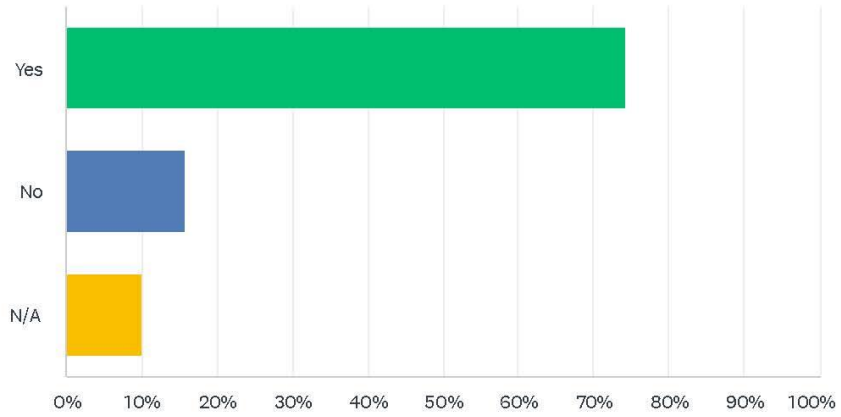
Answered: 71 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	74.65%	53
No	23.94%	17
N/A	1.41%	1
TOTAL		71

Q12 Are the textbooks purchased for this course/program useful to you?

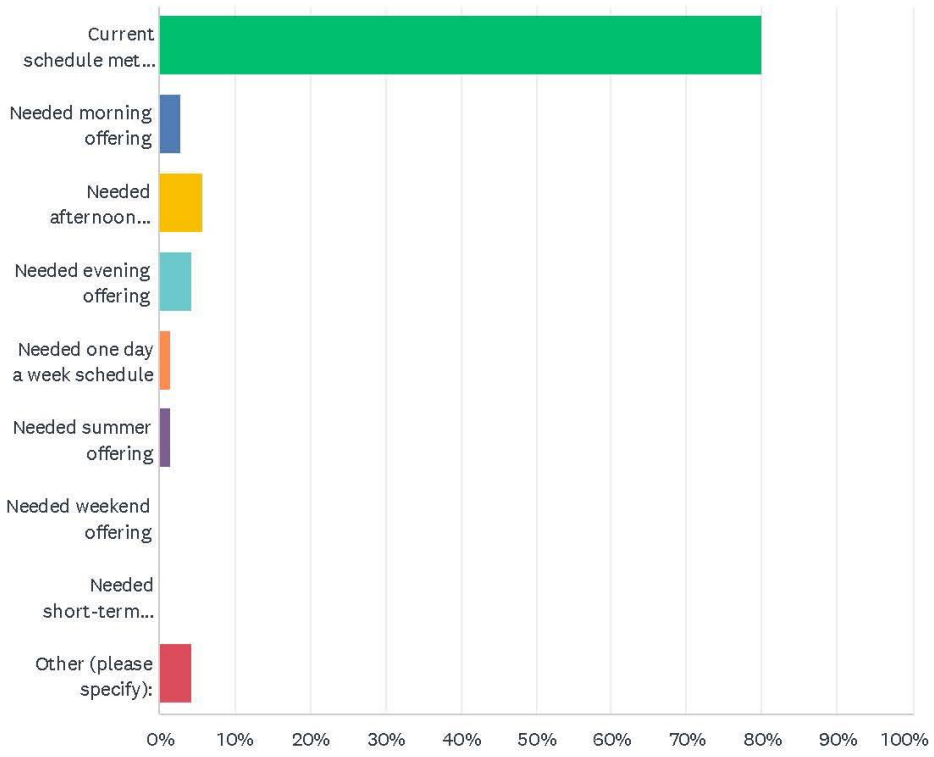
Answered: 70 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	74.29%	52
No	15.71%	11
N/A	10.00%	7
TOTAL		70

Q13 Scheduling: Did the scheduling of the course meet your needs?

Answered: 70 Skipped: 1



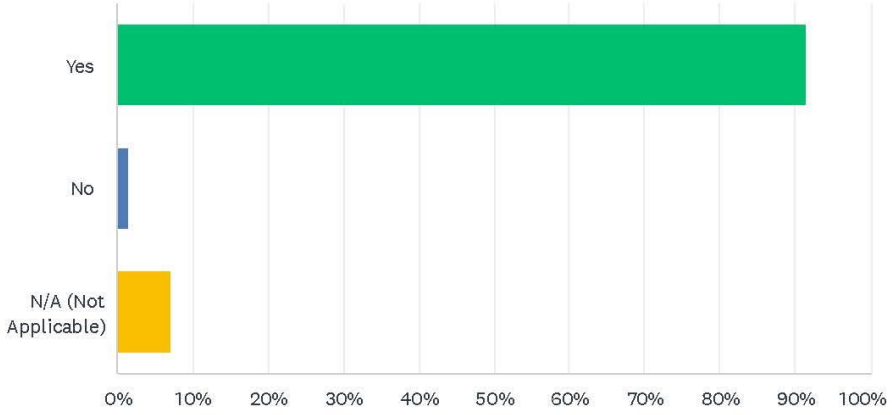
ANSWER CHOICES	RESPONSES	
Current schedule met my needs	80.00%	56
Needed morning offering	2.86%	2
Needed afternoon offering	5.71%	4
Needed evening offering	4.29%	3
Needed one day a week schedule	1.43%	1
Needed summer offering	1.43%	1
Needed weekend offering	0.00%	0
Needed short-term (less than semester) offering	0.00%	0
Other (please specify):	4.29%	3
TOTAL		70

#	OTHER (PLEASE SPECIFY):	DATE
1	This class should be offered in the spring semester	10/14/2021 4:15 PM
2	Online Class	10/14/2021 4:09 PM

3	Needed fall and spring options offered	10/1/2021 1:19 PM

Q14 I was provided with reasonable access to the facilities? (Not Applicable (N/A) for those who have not physically attended classes on campus)

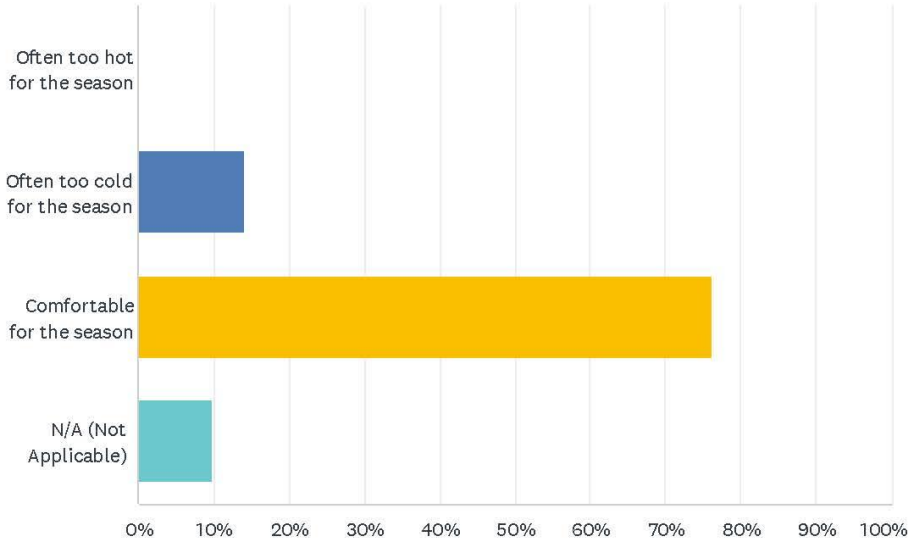
Answered: 71 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	91.55%	65
No	1.41%	1
N/A (Not Applicable)	7.04%	5
TOTAL		71

Q15 The temperature of the facilities in summer or fall is..... (Not Applicable (N/A) for those who have not physically attended classes on campus)

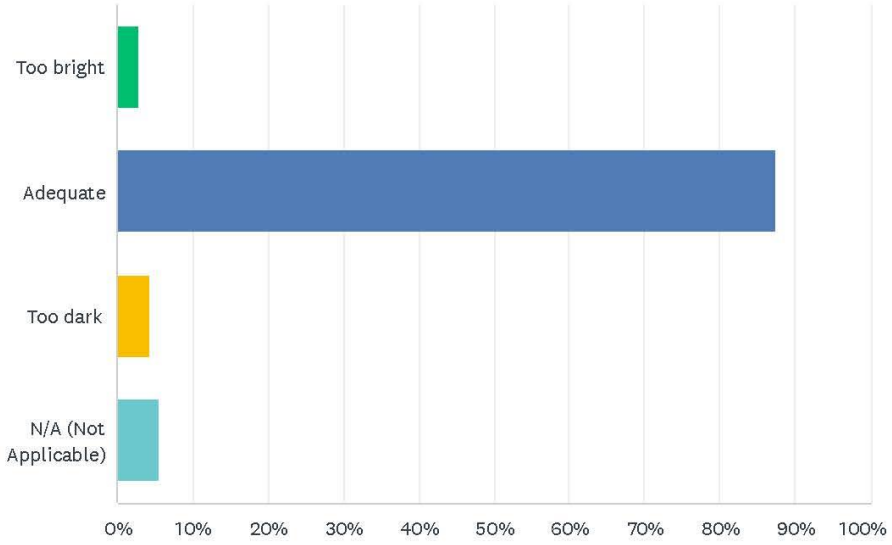
Answered: 71 Skipped: 0



ANSWER CHOICES	RESPONSES	
Often too hot for the season	0.00%	0
Often too cold for the season	14.08%	10
Comfortable for the season	76.06%	54
N/A (Not Applicable)	9.86%	7
TOTAL		71

Q16 The lighting in the facilities is..... (Not Applicable (N/A) for those who have not physically attended classes on campus)

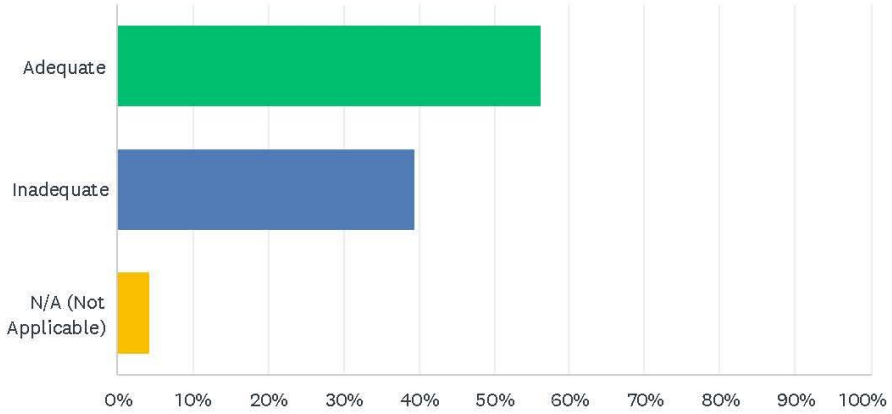
Answered: 71 Skipped: 0



ANSWER CHOICES	RESPONSES	
Too bright	2.82%	2
Adequate	87.32%	62
Too dark	4.23%	3
N/A (Not Applicable)	5.63%	4
TOTAL		71

Q17 The chairs/tables/desks are? (Not Applicable (N/A) for those who have not physically attended classes on campus)

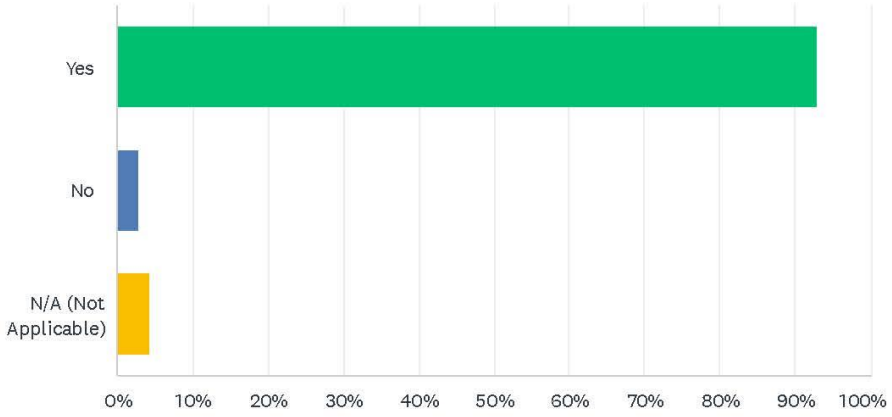
Answered: 71 Skipped: 0



ANSWER CHOICES	RESPONSES	
Adequate	56.34%	40
Inadequate	39.44%	28
N/A (Not Applicable)	4.23%	3
TOTAL		71

Q18 Is there enough space for you to do your work in class? (Not Applicable (N/A) for those who have not physically attended classes on campus)

Answered: 71 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	92.96%	66
No	2.82%	2
N/A (Not Applicable)	4.23%	3
TOTAL		71

Q19 Please elaborate on your responses and include any additional facilities-related comments: (Not Applicable (N/A) for those who have not physically attended classes on campus)

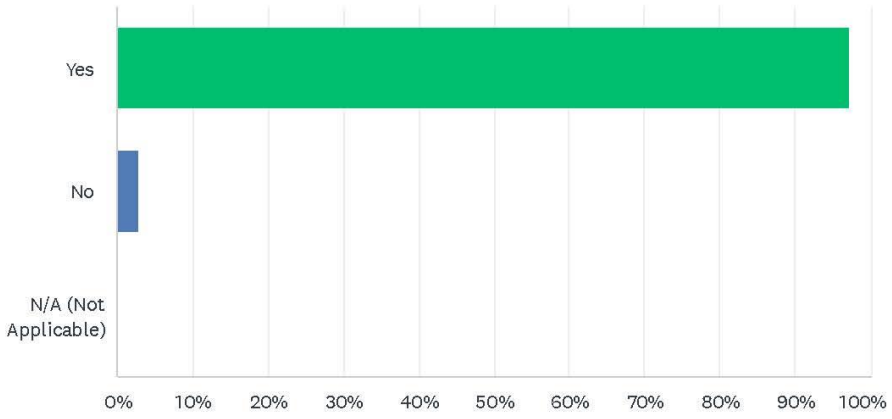
Answered: 54 Skipped: 17

#	RESPONSES	DATE
1	.....	10/14/2021 4:20 PM
2	chairs in lab need to be replaced	10/14/2021 4:19 PM
3	So far my experience at Lassen Community College has been good.	10/14/2021 4:18 PM
4	I feel as if the facility is good, just need more appliances and comfortable adjustments to the students liking	10/14/2021 4:17 PM
5	Chairs are uncomfortable, noisy, and distracting during lab work and particularly during exams. Highly distracting.	10/14/2021 4:16 PM
6	The only problem I had with this class is that the chairs are old, squeaky, and not that comfortable to sit in. Our teacher, however, does a good job teaching the class and gives us a reasonable amount of time and resources we need to pass the class.	10/14/2021 4:15 PM
7	This classroom has awful chairs and I think that new ones would provide a better learning environment	10/14/2021 4:15 PM
8	Lab chairs are very uncomfortable and old	10/14/2021 4:14 PM
9	THE CHAIRS ARE UNACCEPTABLE FOR LAB USE. THEY ARE LOUD AND DISTRACTING WHEN MOVED, WHILE TAKING AN EXAM OR OTHERWISE TRYING TO CONCENTRATE.	10/14/2021 4:13 PM
10	The chairs were horrible	10/14/2021 4:13 PM
11	We desperately need new chairs. Ours look and sound like they're from the 70's. They're distracting, especially during a lecture and an exam.	10/14/2021 4:10 PM
12	I'm perfect.	10/14/2021 4:08 PM
13	It is always clean	10/14/2021 4:07 PM
14	The chairs make my back hurt	10/14/2021 4:06 PM
15	everything is well	10/14/2021 4:04 PM
16	N/A	10/14/2021 4:04 PM
17	I think all of the additional facilities are in good shape.	10/14/2021 4:03 PM
18	The chairs are very squeaky and are often loud when moving around during tests.	10/14/2021 4:02 PM
19	The classroom is comfortable and offers all that is needed.	10/14/2021 4:02 PM
20	Lab and tables are large enough for what we're doing, microscopes and bones are easy to access.	10/14/2021 4:01 PM
21	Nothing needs to be elaborated on	10/14/2021 4:01 PM
22	n/a	10/14/2021 4:00 PM
23	N/A	10/7/2021 10:35 AM
24	N/A	10/7/2021 9:54 AM
25	N/A	10/7/2021 8:22 AM
26	I can't remember all the questions	10/7/2021 8:14 AM

27	No complaints here	10/7/2021 8:12 AM
28	I have nothing to say	10/7/2021 8:10 AM
29	chairs are simply old and make lots of noise.	10/7/2021 8:08 AM
30	More available hotspots for areas with poor internet connection	10/4/2021 7:24 PM
31	N/A	10/1/2021 1:21 PM
32	It's organized class	10/1/2021 1:20 PM
33	I feel it's unnecessary to come 3 days a week and still have to do the lecture portion online on our own time.	10/1/2021 1:20 PM
34	Wish classes were offered in fall and spring, so I could have the option to finish before the application period of my next school. Now I have to wait a full year just to apply.	10/1/2021 1:19 PM
35	The books were not used and I wasted a lot of money for nothing. Sorta upset. Chairs and equipment are old and need updates drastically	10/1/2021 1:19 PM
36	The chairs are old, creaky, and uncomfortable. Tables need to be updated as well.	10/1/2021 1:19 PM
37	Everything is good	10/1/2021 1:18 PM
38	N/A	10/1/2021 1:18 PM
39	Everything has been great! Not a thing I would change.	10/1/2021 1:18 PM
40	It's all great.	10/1/2021 1:18 PM
41	Na	9/30/2021 10:05 AM
42	N/A	9/29/2021 9:00 PM
43	Great environment for working on your lab work, wish there was in class lecture but it's a hybrid class.	9/29/2021 8:25 PM
44	because the teacher has been concerned that we are comfortable and have a good environment to study	9/29/2021 6:59 PM
45	Because the teacher has been very concenrened on what we need to b confortable and have a good environment to study.	9/29/2021 6:59 PM
46	The facilities are nice and it was helpful that they put in lights the parking lot when lights went out.	9/29/2021 6:53 PM
47	The facilities provide all necessary qualities in order for me to be successful.	9/29/2021 6:47 PM
48	I have tried to take this class in the past and my current instructor has been able to help me understand the material and I'm succeeding in the class to my expectations.	9/29/2021 6:47 PM
49	In class it's a good working environment.	9/29/2021 6:45 PM
50	Class is dull lighted and cold	9/29/2021 6:44 PM
51	More lights around parking lots and spaces where it gets really dark	9/29/2021 6:43 PM
52	wanted an in person lecture offering but with covid it wasn't possible	9/29/2021 6:42 PM
53	The chairs are falling apart	9/29/2021 6:42 PM
54	Some of the classrooms are too bright and it feels like you can't see as well. I have had both a classroom really comfortable in the Humanities building but one in the creative arts that was a bit too confined.	9/22/2021 3:58 PM

Q20 Did the course/program provide the necessary equipment?

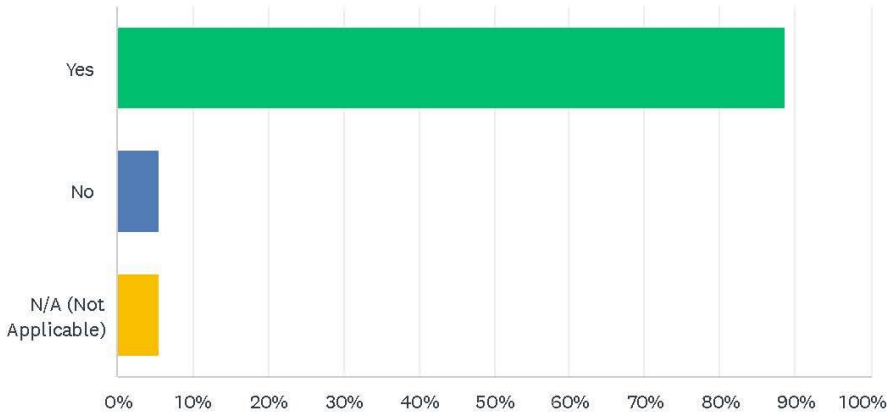
Answered: 71 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	97.18%	69
No	2.82%	2
N/A (Not Applicable)	0.00%	0
TOTAL		71

Q21 Is enough time on equipment allowed for each student?

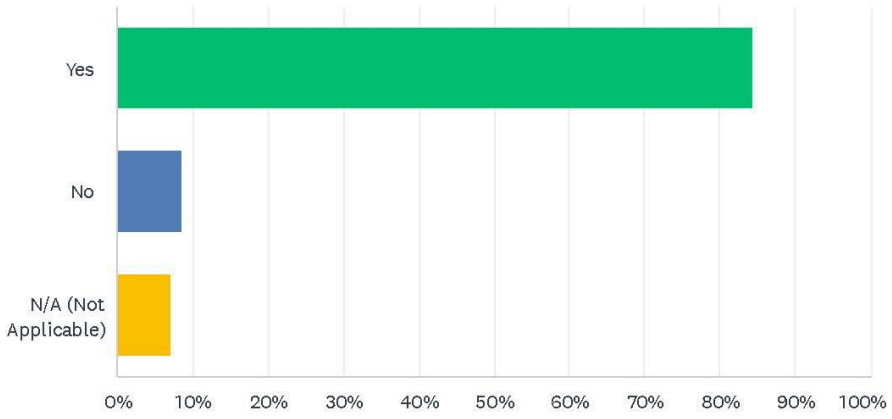
Answered: 71 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	88.73%	63
No	5.63%	4
N/A (Not Applicable)	5.63%	4
TOTAL		71

Q22 Is equipment current?

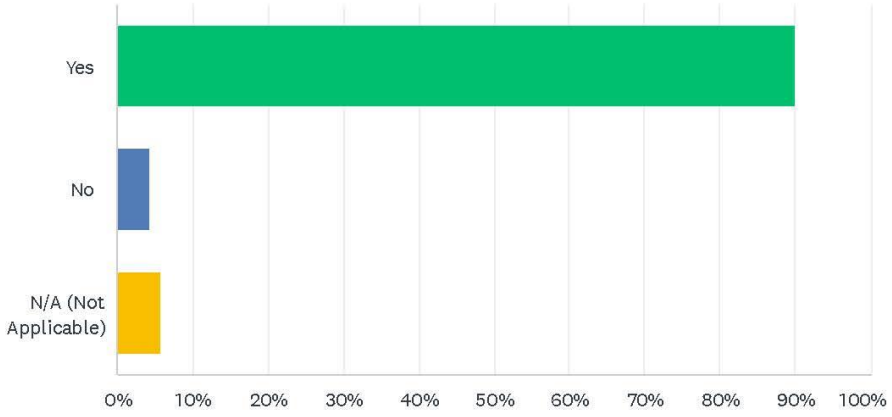
Answered: 71 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	84.51%	60
No	8.45%	6
N/A (Not Applicable)	7.04%	5
TOTAL		71

Q23 Is equipment generally in good operation condition?

Answered: 70 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	90.00%	63
No	4.29%	3
N/A (Not Applicable)	5.71%	4
TOTAL		70

Q24 Describe how this course/program could be improved to better meet the needs of the students at Lassen Community College:

Answered: 61 Skipped: 10

#	RESPONSES	DATE
1	Good	10/14/2021 4:20 PM
2	n/a	10/14/2021 4:19 PM
3	We could have better microscopes	10/14/2021 4:18 PM
4	The study rate and learning's for this class is a bit difficult to handle but its time consuming and lot of work. There is not much i can change because the course is good, just overwhelming	10/14/2021 4:17 PM
5	New chairs	10/14/2021 4:16 PM
6	I do not have a response at the moment about what in this class can be improved, I think our teacher does a good job.	10/14/2021 4:15 PM
7	New chairs would greatly improve the needs of students	10/14/2021 4:15 PM
8	New chairs	10/14/2021 4:14 PM
9	NEW CHAIRS FOR THE STUDENTS SHOULD BE A PRIORITY	10/14/2021 4:13 PM
10	More comfortable chairs that students could raise or lower to meet individual height needs	10/14/2021 4:13 PM
11	Good program	10/14/2021 4:11 PM
12	I do love the hybrid model, but in the post-covid future, having the option to take a fully in person or hybrid course would be nice. It is hard to essentially teach myself everything at home, but having lectures recorded helps with note taking.	10/14/2021 4:10 PM
13	Its okay.	10/14/2021 4:08 PM
14	learning about bio in the human body	10/14/2021 4:07 PM
15	I think that this needs to be an In Person only class	10/14/2021 4:06 PM
16	nothing needs to change	10/14/2021 4:06 PM
17	nothing is needed st this time	10/14/2021 4:04 PM
18	N/A	10/14/2021 4:04 PM
19	I think it is good the way it is.	10/14/2021 4:03 PM
20	I think we could get more time in class to do our labs instead of an hour would help us get through all the information fast enough.	10/14/2021 4:02 PM
21	There is not enough time allowed for each unit to adequately study in the lab.	10/14/2021 4:02 PM
22	The lab component of this course is crucial to student success. The diagrams in our books are clearly labeled, but the three-dimensional features of bones are difficult to convey solely from a two-dimensional presentation. I believe our chances of success in this course would increase if our lab time was also increased.	10/14/2021 4:01 PM
23	I don't know	10/14/2021 4:01 PM
24	n/a	10/14/2021 4:00 PM
25	The teacher could be a little more helpful when it came to myLab	10/7/2021 10:35 AM
26	n/a	10/7/2021 9:54 AM

27	I like the labs and the homework helps me understand the material.	10/7/2021 8:22 AM
28	The lectures could be shorter. I hate sitting behind my computer listening to lectures for 3 hours and maybe the labs could relate more to the lectures. Sometimes I think everyone is lost.	10/7/2021 8:14 AM
29	Maybe if the labs were performed along with us to illustrate what ours should look like	10/7/2021 8:12 AM
30	N/a	10/7/2021 8:11 AM
31	I don't have anything to say. I think the course is fine	10/7/2021 8:10 AM
32	Teacher does very well.	10/7/2021 8:10 AM
33	I have no recommendations	10/7/2021 8:08 AM
34	More in class lecture time.	10/4/2021 7:24 PM
35	Have more classes available to choose.	10/1/2021 1:21 PM
36	N/a	10/1/2021 1:20 PM
37	I think it would be beneficial to have more lecture learning done in class	10/1/2021 1:20 PM
38	I think that the lab itself could use some updating. Between books, chairs, and some minor equipment needed.	10/1/2021 1:19 PM
39	Offered in spring and fall	10/1/2021 1:19 PM
40	Allow for the working students to have more options to have evening course as it is a career advancement course for your new rn program	10/1/2021 1:19 PM
41	N/A	10/1/2021 1:19 PM
42	It's good	10/1/2021 1:18 PM
43	N/A	10/1/2021 1:18 PM
44	I wouldn't change a thing!	10/1/2021 1:18 PM
45	Some bacteria and solutions need to come in at time.	10/1/2021 1:18 PM
46	It needs to have meetings at a different time because I have another class during the zoom time	9/30/2021 10:05 AM
47	N/A	9/29/2021 9:00 PM
48	Many students struggle to learn online, and a lecture that lasts 1.5 hours takes 3-4 hours to take notes on and not everyone has the safe quiet environment or means to reach one outside of demanded in class time. Would be nice if there was a non hybrid non online class offered.	9/29/2021 8:25 PM
49	In my personal opinion, I think it does not need improvement, it is a pleasant and dynamic class	9/29/2021 6:59 PM
50	In my opinion it doesnt need to improve.	9/29/2021 6:59 PM
51	The slides used in the lab are starting to wear out and could use upgrading	9/29/2021 6:53 PM
52	Online files and modules could have a better set-up in order to allow easy access.	9/29/2021 6:47 PM
53	New slides and new microscopes would be helpful or a way to take better pictures.	9/29/2021 6:47 PM
54	I think it has all it needs	9/29/2021 6:45 PM
55	Offer full in the class option. Anatomy Hybrid is not a good option for students who need more time invested in lectures or in person lectures.	9/29/2021 6:44 PM
56	If I didn't feel like I was going to fall out of the chairs	9/29/2021 6:43 PM
57	offer a fully in person class	9/29/2021 6:42 PM
58	This course is very "I put up a YouTube video, good luck" very poorly explained and hard to follow	9/29/2021 6:42 PM

59	A course schedule for the entire semester would be nice so each student knows exactly what is happening every week or weeks into the future.	9/22/2021 3:58 PM
60	I think this course has helped me pretty well so far this semester.	9/17/2021 9:46 AM
61	I think the course could be more structured.	9/16/2021 1:28 PM

Q25 Please provide any additional comments on the course or program:

Answered: 40 Skipped: 31

#	RESPONSES	DATE
1	none	10/14/2021 4:19 PM
2	So far I like this course.	10/14/2021 4:18 PM
3	None at this time	10/14/2021 4:16 PM
4	I may not be the smartest when it comes to sciences but this class helps me understand what we're learning better.	10/14/2021 4:15 PM
5	OTHER THAN THE CHAIRS, LAB EQUIPMENT IS ADEQUATE AND TEACHER IS GREAT.	10/14/2021 4:13 PM
6	The class needs new chairs	10/14/2021 4:13 PM
7	Tobola is wonderful! She's very hands on and gladly provides the extra support for each student.	10/14/2021 4:10 PM
8	No comments.	10/14/2021 4:08 PM
9	N/A	10/14/2021 4:04 PM
10	I think it is a good program/course.	10/14/2021 4:03 PM
11	N/A	10/14/2021 4:01 PM
12	n/a	10/14/2021 4:00 PM
13	n/a	10/7/2021 9:54 AM
14	All good.	10/7/2021 8:22 AM
15	All good with me	10/7/2021 8:12 AM
16	n/a	10/7/2021 8:11 AM
17	none	10/7/2021 8:08 AM
18	In class lab is great.	10/4/2021 7:24 PM
19	N/A	10/1/2021 1:21 PM
20	N/a	10/1/2021 1:20 PM
21	Interesting learning	10/1/2021 1:20 PM
22	N/A	10/1/2021 1:19 PM
23	Refund everyone for books fully	10/1/2021 1:19 PM
24	N/A	10/1/2021 1:19 PM
25	Everything is good	10/1/2021 1:18 PM
26	N/A	10/1/2021 1:18 PM
27	Dr. B is amazing!	10/1/2021 1:18 PM
28	This course is a big improvement and I'm doing better than what happened two years ago. :)	10/1/2021 1:18 PM
29	Na	9/30/2021 10:05 AM
30	N/A	9/29/2021 9:00 PM
31	Great course, I really feel like I'm learning in depth quick paced that isn't too overwhelming to retain.	9/29/2021 8:25 PM

32	excellent school good teachers	9/29/2021 6:59 PM
33	Excellent school and good teachers	9/29/2021 6:59 PM
34	The instructor is awesome and is understanding about situations if you talk to her and don't take advantage of the situation. The ability to use the lab during office hours was nice.	9/29/2021 6:53 PM
35	No comment.	9/29/2021 6:47 PM
36	Enjoying the class	9/29/2021 6:47 PM
37	It's great	9/29/2021 6:45 PM
38	Would prefer more in depth lectures.	9/29/2021 6:44 PM
39	Hard to follow not well explained	9/29/2021 6:42 PM
40	This course is a good one, it is hard but the online zoom meetings are helpful. It is a lot of homework which I think lots of students struggle with so maybe less work on the labs and instruction videos with more practice problems that are done slowly and then fast.	9/22/2021 3:58 PM

BIOLOGY

Associate in Science Degree in Biology for Transfer

Required Core Courses: 32 units **Total Units:** 60 units

Course Number	Course Title	Fall	Spring
BIO 1	Principles of Molecular and Cellular Biology		4
BIO 4	Principles of Evolutionary, Organismal, and Ecological Biology		5
CHEM 1A	General Chemistry I	5	
CHEM 1B	General Chemistry II		5
MATH 1A	Analytical Geometry and Calculus I	5	
PHYS 2A	General Physics I	4(odd)	
PHYS 2B	General Physics II		4 (even)

Completion of either the CSU STEM GE (33) or IGETC Option (31)

See a counselor to prepare your educational plan with the latest scheduling information.

NATURAL SCIENCE

Associate in Arts Degree
General Studies – Emphasis in Natural Science

Required Core Courses: 18 units **Total Units:** 60 units

Select a minimum of eighteen (18) units from the following courses in area of emphasis:

Course Number	Course Title	Fall	Spring
AGR 10	Introduction to Animal Science		3(even)
AGR 19	Introduction to Soil Science	3 (even)	
AGR 20	Introduction to Plant Science		4
ANTH 1	Physical Anthropology	3	
BIOL 1	Principles of Molecular and Cellular Biology		4
BIOL 4	Principles of Evolutionary, Organismal, and Ecological Biology		5
BIOL 10	Natural History of Plants & Animals	4	
BIOL 20	Microbiology	5	
BIOL 25	Human Anatomy & Physiology I	4	
BIOL 26	Human Anatomy & Physiology II		4
BIOL 32	Life Science	3	3
BIOL 32L	Life Science Lab	4	4
CHEM 1A	General Chemistry I	5	
CHEM 1B	General Chemistry II		5
CHEM 8	Introduction to Organic and Biochemistry		4
CHEM 45	Introduction to Inorganic Chemistry	4	4
CHEM 55	Introductory Chemistry	3	3
GEOL 5	Historical Geology & Paleontology		4
PHSC 1	Physical Science	3	3
PHYS 2A	General Physics I	4(odd)	
PHYS 2B	General Physics II		4 (even)

Electives: 24 units course numbered 1-99 (no more than 6 units in one discipline)
General Education requirements: 18 units

See a counselor to prepare your educational plan with the latest scheduling information.

NATURAL SCIENCE

Associate in Arts Degree
University Studies – Emphasis in Natural Science

Required Core Courses: 18 units **Total Units:** 60 units

Select a minimum of eighteen (18) units from the following courses in area of emphasis:

Course Number	Course Title	Fall	Spring
AGR 10	Introduction to Animal Science		3(even)
AGR 19	Introduction to Soil Science	3 (even)	
AGR 20	Introduction to Plant Science		4
BIOL 1	Principles of Molecular and Cellular Biology		4
BIOL 4	Principles of Evolutionary, Organismal, and Ecological Biology		5
BIOL 10	Natural History of Plants & Animals	4	
BIOL 20	Microbiology	5	
BIOL 25	Human Anatomy & Physiology I	4	
BIOL 26	Human Anatomy & Physiology II		4
BIOL 32	Life Science	3	3
BIOL 32L	Life Science Lab	1	1
CHEM 1A	General Chemistry I	5	
CHEM 1B	General Chemistry II		5
CHEM 8	Introduction to Organic and Biochemistry		4
CHEM 45	Introduction to Chemistry	4	4
GEOL 5	Historical Geology & Paleontology		4
PHSC 1	Physical Science	3	3
PHYS 2A	General Physics I	4(odd)	
PHYS 2B	General Physics II		4 (even)

Remaining Units to Total 60 Units may be selected from electives. Courses must be numbered 1 – 49.

Select General Education Option (CSU or IGETC)

See a counselor to prepare your educational plan with the latest scheduling information.

Associate in Science Degree in Nutrition and Dietetics for Transfer

Required Core Courses: 28 units **Total Units:** 60 units

Core 16 units:

Course Number	Course Title	Fall	Spring
BIOL 20	Microbiology	5	
CHEM 1A	General Chemistry I	5	
HLTH 25	Understanding Nutrition	3	3
PSY 1	Introduction to Psychology	3	3

Select 8 units from the following:

Course Number	Course Title	Fall	Spring
BIOL 25 &	Human Anatomy and Physiology I	4	
BIOL 26	Human Anatomy and Physiology II		4
OR			
CHEM 1B &	General Chemistry II		5
MATH 40	Introduction to Statistics	3	3

Select 4 units from the following:

Course Number	Course Title	Fall	Spring
CHEM 45	Introduction to Chemistry	4	4

Select General Education Option (CSU or IGETC)

See a counselor to prepare your educational plan with the latest scheduling information.

CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION CERTIFICATE OF ACHIEVEMENT

Total Units: 39 units

AREA A – English Language and Critical Thinking
One course from each area

1. Oral Communication:

Course Number	Course Title	Fall	Spring
SPCH 1	Fundamentals of Speech Communication	3	3

2. Written Communication:

Course Number	Course Title	Fall	Spring
ENGL 1	English Composition	3	3

3. Critical Thinking:

Course Number	Course Title	Fall	Spring
ENGL 7	Argumentative Writing and Critical Thinking Through Literature		
ENGL 9	Critical Thinking and Composition	3	3
PHIL 2	Critical Thinking	3	

AREA B – Scientific Inquiry and Quantitative Reasoning
One course from each area including at least one laboratory science course

1. Physical Universe:

Course Number	Course Title	Fall	Spring
ASTR 1	Introduction to Astronomy (L)		4
CHEM 1A	General Chemistry I (L)	5	
CHEM 1B	General Chemistry II (L)		5
CHEM 8	Introduction to Organic and Biochemistry (L)		4
CHEM 45	Introduction to Chemistry (L)	4	4
GEOG 1	Physical Geography		3
GEOL 1	Physical Geology (L)	4	
GEOL 5	Historical Geology & Paleontology (L)		4
PHSC 1	Physical Science	3	3
PHYS 2A	General Physics I (L)	4(odd)	
PHYS 2B	General Physics II (L)		4 (even)

2. Life Forms:

Course Number	Course Title	Fall	Spring
AGR 20	Introduction to Plant Science		4(odd)
ANTH 1	Physical Anthropology	3	3
BIOL 1	Principles of Molecular and Cellular Biology (L)	4	4
BIOL 4	Principles of Evolutionary, Organismal and Ecological Biology (L)		5
BIOL 10	Natural History of Plants & Animals (L)	4	
BIOL 20	Microbiology (L)	5	
BIOL 25	Human Anatomy & Physiology I (L)	4	
BIOL 26	Human Anatomy & Physiology II (L)		4
BIOL 32	Life Science	3	3
BIOL 32L	Life Science Lab (L)	1	1

3. Laboratory Science (L): Any of the above (L) courses

4. Mathematics/Quantitative Reasoning:

Course Number	Course Title	Fall	Spring
MATH 1A	Analytical Geometry and Calculus I	5	
MATH 1B	Analytical Geometry and Calculus II		5
MATH 1C	Analytical Geometry and Calculus III		
MATH 7	Trigonometry	3	3
MATH 8	Advanced Algebra	3	3
MATH 11A	Concepts of Elementary School Mathematics I	3(even)	
MATH 11B	Concepts of Elementary School Mathematics II		3(odd)
MATH 40	Elementary Statistics	3	3

AREA C – Arts and Humanities
Three of the following courses. Limit of two in one area

1. Arts (Art, Dance, Music, Theater):

Course Number	Course Title	Fall	Spring
ART 1A	Fundamentals of Two-Dimensional Design	3	
ART 1B	Fundamentals of Three-Dimensional Design		3(even)
ART 2	Drawing	3	3
ART 3	Beginning Life Drawing		3(even)
ART 6	Survey of Art History: Prehistoric through Renaissance	3	
ART 7	Survey of Art History: Renaissance through Contemporary		3
ART 8	Art Appreciation	3	3
ART 9	History of Asian Art	3	
ART 10A	Beginning Painting	3	3
ART 30	Introduction to Sculpture		3(odd)
ART 36A	Beginning Ceramics	3	3
FILM 1	History of the Cinema	3	3
MUS 6	Music History from Antiquity to 1750	3	
MUS 7	Music History from 1750 to Modern Era		3
MUS 12	Music Appreciation	3	3

2. Humanities (Literature, Philosophy, Foreign Languages):

Course Number	Course Title	Fall	Spring
ENGL 2	Introduction to Literary Types	3	
ENGL 3	British Literature I	3(odd)	
ENGL 4	British Literature II		3(even)
ENGL 5	Survey of World Literature II		3(odd)
ENGL 10	Shakespeare		3 (odd)
ENGL 12	Survey of American Literature II	3(even)	
ENGL 33	Studies in Fiction		3(even)
HIST 14	World History, Beginning to 1500	3 /	
HIST 15	World History, 1500 to Present		/3
HUM 1	Western Civilization: Prehistoric Times to 1600	3	
HUM 2	Western Civilization: 1600 to Present		3
PHIL 1	Introduction to Philosophy	3	
PHIL 10	Comparative World Religions	3	3

SPAN 1	First Course in Spanish		
SPAN 2	Second Course in Spanish		

AREA D – Social Sciences
Three of the following courses in at least two disciplines

1. Anthropology and Archeology:

Course Number	Course Title	Fall	Spring
ANTH 2	Cultural Anthropology		3
ANTH 3	Introduction to Archaeology		3

2. Economics:

Course Number	Course Title	Fall	Spring
AGR 2	Agricultural Economics		3(even)
ECON 10	Macro-economics	3	
ECON 11	Micro-economics		3

3. Ethnic Studies:

Course Number	Course Title	Fall	Spring
ES 1	Ethnic Minorities in America	3	3

4. Gender Studies:

Course Number	Course Title	Fall	Spring
SOC 4	Introduction to Gender	3	

5. Geography:

Course Number	Course Title	Fall	Spring
GEOG 2	Cultural Geography	3	

6. History:

Course Number	Course Title	Fall	Spring
HIST 14	World History: Beginning to 1500	3/	3/
HIST 15	World History: 1500 to Present	/ 3	/3
HIST 16	U.S. History	3	3
HIST 17	Post Civil War U.S. History	3	3

7. Interdisciplinary Social or Behavioral Science:

Course Number	Course Title	Fall	Spring
CD 31	Child Development: Conception through Adolescence	3	3
JOUR 4	Mass Communication and Society		3
PSY 18	Human Development: A Life Span	3	3
PSY 31	Child Development: Conception through Adolescence	3	3

8. Political Science, Government and Legal Institutions:

Course Number	Course Title	Fall	Spring
AJ 20	Criminal Law	3	
PLSC 1	American Institutions	3	3

9. Psychology:

Course Number	Course Title	Fall	Spring
PSY 1	Introduction to Psychology	3	3
PSY 2	Principles of Psychology	3	3
PSY 5	Introduction to Research Methods		3(even)
PSY 6	Abnormal Psychology	3	3

10. Sociology and Criminology:

Course Number	Course Title	Fall	Spring
SOC 1	Introduction to Sociology	3	3
SOC 2	Social Problems	3	3

AREA E – Lifelong Understanding and Self-Development
One course or three units

Course Number	Course Title	Fall	Spring
CD 31	Child Development: Conception through Adolescence	3	3
CG 1	Strategies for Creating success in College and in Life	3	
HLTH 2	Personal Health	3	3
HLTH 25	Understanding Nutrition	3	3
HUS 30	Pharmacology of Drugs of Abuse		3
PE 15	Introduction to Kinesiology	3	
PSY 1	Introduction to Psychology	3	3
PSY 2	Principles of Psychology	3	3
PSY 18	Human Development: A Life Span	3	3
PSY 31	Child Development: Conception through Adolescence	3	3
PSY 33	Psychology of Personal Adjustment	3	3
SOC 3	Family Relations		3

See a counselor to prepare your educational plan with the latest scheduling information.

INTERSEGMENTAL GENERAL EDUCATION CURRICULUM CERTIFICATE OF ACHIEVEMENT

Total Units: 34-37 units

AREA 1 – English Communication – 9 units
One course from each area

Course Number	Course Title	Fall	Spring
ENGL 1	English Composition	3	3
ENGL 7 ***OR***	Argumentative Writing and Critical Thinking Through Literature	3	3
ENGL 9	Critical Thinking and Composition	3	3
SPCH 1	Fundamentals of Speech Communication	3	3

AREA 2 – Mathematical Concepts and Quantitative Reasoning - 3 units

Course Number	Course Title	Fall	Spring
MATH 1A	Analytical Geometry and Calculus I	5	
MATH 1B	Analytical Geometry and Calculus II		5
MATH 1C	Analytical Geometry and Calculus III		
MATH 8	Advanced Algebra		3
MATH 40	Elementary Statistics	3	3

AREA 3 – Arts and Humanities – 9 units
Three courses. At least one from Arts and one from Humanities

1. Arts:

Course Number	Course Title	Fall	Spring
ART 6	Survey of Art History: Prehistoric through Renaissance	3	
ART 7	Survey of Art History: Renaissance through Contemporary		3
ART 8	Art Appreciation	3	3
ART 9	History of Asian Art	3	
FILM 1	History of the Cinema	3	3
MUS 6	Music History from Antiquity to 1750	3	
MUS 7	Music History from 1750 to Modern Era		3
MUS 12	Music Appreciation	3	3

2. Humanities:

Course Number	Course Title	Fall	Spring
ENGL 2	Introduction to Literary Types	3	
ENGL 3	British Literature I	3(odd)	
ENGL 4	British Literature II		3(even)
ENGL 5	Survey of World Literature II		3(odd)
ENGL 10	Shakespeare		3 (odd)
ENGL 12	Survey of American Literature II	3(even)	
ENGL 33	Studies in Fiction		3(even)
HUM 1	Western Civilization: Prehistoric to 1600	3	
HUM 2	Western Civilization: 1600 to Present		3
PHIL 1	Introduction to Philosophy	3	

PHIL 10	Comparative World Religions		3
SPAN 2	Second Course in Spanish		

AREA 4 – Social and Behavioral Sciences – 9 units
Three of the following courses in at least two disciplines

Course Number	Course Title	Fall	Spring
AGR 2	Agricultural Economics	3(even)	3(even)
ANTH 2	Cultural Anthropology		3
ANTH 3	Introduction to Archaeology		3
CD 31	Child Development: Conception through Adolescence	3	3
ECON 10	Macro-economics	3	
ECON 11	Micro-economics		3
ES 1	Ethnic Minorities in America	3	3
GEOG 2	Cultural Geography	3	
HIST 14	World History, Beginning to 1500	3/	3/
HIST 15	World History, 1500 to Present	/3	/3
HIST 16	U.S. History	3	3
HIST 17	Post Civil War U.S. History	3	3
JOUR 4	Mass Communication and Society		3
PLSC 1	American Institutions	3	3
PSY 1	Introduction to Psychology	3	3
PSY 2	Principles of Psychology	3	3
PSY 5	Introduction to Research Methods		3(even)
PSY 6	Abnormal Psychology	3	3
PSY 18	Human Development: A Life Span	3	3
PSY 31	Child Development: Conception through Adolescence	3	3
SOC 1	Introduction to Sociology	3	3
SOC 2	Social Problems	3	3
SOC 4	Introduction to Gender	3	

AREA 5 – Physical and Biological Sciences – 7-9 units
Two courses. One physical science, one biological science, at least one must include a laboratory

1. Physical Sciences:

Course Number	Course Title	Fall	Spring
ASTR 1	Introduction to Astronomy (L)		
CHEM 1A	General Chemistry I (L)	5	
CHEM 1B	General Chemistry II (L)		5
CHEM 8	Introduction to Organic and Biochemistry (L)		4
CHEM 45	Introduction to Chemistry (L)	4	4
GEOG 1	Physical Geography		3
GEOL 1	Physical Geology (L)	4	
GEOL 5	Historical Geology & Paleontology (L)		4
PHSC 1	Physical Science	3	3
PHYS 2A	General Physics I (L)	4(odd)	
PHYS 2B	General Physics II (L)		4 (even)

2. Biological Sciences:

Course Number	Course Title	Fall	Spring
AGR 20	Introduction to Plant Science		4(odd)
ANTH 1	Physical Anthropology	3	3
BIOL 1	Principles of Molecular and Cellular Biology (L)	4	4
BIOL 4	Principles of Evolutionary, Organismal, and Ecological Biology (L)		5
BIOL 10	Natural History of Plants & Animals (L)	4	
BIOL 20	Microbiology (L)	5	
BIOL 25	Human Anatomy & Physiology I (L)	4	
BIOL 26	Human Anatomy & Physiology II (L)		4
BIOL 32	Life Science	3	3
BIOL 32L	Life Science Lab (L)	1	1

See a counselor to prepare your educational plan with the latest scheduling information.

Lassen Community College
Status of Curriculum Reviews

Math/ Natural Science IPR
Status of Curriculum Review April 5, 2022

Course	Curriculum Committee Review Completed	Curriculum Committee Review Not Completed	Course SLO mapping Curriculum Committee reviewed
ANTH 1 Biological Anthropology	03/15/2022		02/15/2022
BIOL 1 Principles of Molecular and Cellular Biology	11/2/2021		01/19/2021
BIOL 4 Principles of Evolutionary Organismal and Ecological Biology	11/02/2021		01/19/2021
BIOL 10 Natural History of Plants & Animals	11/02/2021		01/19/2021
BIOL 20 Microbiology	11/02/2021		01/19/2021
BIOL 25 Human Anatomy & Physiology I	11/02/2021		01/19/2021
BIOL 26 Human Anatomy & Physiology II	11/02/2021		01/19/2021
BIOL 32 General Biology	11/02/2021		01/19/2021
BIOL 32L General Biology with Laboratory	11/02/2021		01/19/2021
CHEM 1A General Chemistry I	1/18/2022		11/17/2020
CHEM 1B General Chemistry II	1/18/2022		11/17/2020
CHEM 8 Introduction to Organic and Biochemistry	11/16/2021		11/17/2020
CHEM 40 – Survey of Chemistry and Physics	11/16/2021		11/17/2020
CHEM40L – Teaching Laboratory for Survey of Chemistry and Physics	11/16/2021		11/17/2020
CHEM 45 Introduction to Inorganic Chemistry	11/16/2021		11/17/2020
CHEM 45A Introduction to General Chemistry Discussion Session	2/15/2022		11/17/2020
GEOL 1 Physical Geology	03/01/2022		02/15/2022
GEOL 5 Historical Geology & Paleontology	9/14/2021		02/15/2022
HLTH 25 Understanding Nutrition	11/02/2021		05/04/2021
MATH 1A Analytical Geometry and Calculus I	2/15/2022		03/02/2021
MATH 1B Analytical Geometry	2/15/2022		03/02/2021

Lassen Community College
Status of Curriculum Reviews

and Calculus II			
MATH 6 Finite Mathematics	New course		
MATH 7 Trigonometry	03/15/2022		05/18/2021
MATH 8 Advanced Algebra	04/05/2022		05/18/2021
MATH 11A Concepts of Elementary School Mathematics I	04/05/2022		02/15/2022
MATH 11B Concepts of Elementary School Mathematics II	04/05/2022		2/15/2022
MATH 40 Elementary Statistics	04/05/2022		05/18/2021
MATH 60 Intermediate Algebra	1/18/2022		05/18/2021
MATH 156 Math Labe – Pre-collegiate Algebra	Inactivated 05/18/2021		
Math 164 Elementary Statistics Lab	04/05/2022		05/18/2021
MATH 166 Finite Mathematics Lab	New course		
MATH 167 Trigonometry Lab	03/15/2022		05/18/2021
MATH 168 College Algebra Lab	04/05/2022		05/18/2021
PHSC 1 General Physical Science	12/7/2021		02/15/2022
PHYS 2A General College Physics I	02/15/2022		03/02/2021
PHYS 2B General College Physics II	02/15/2022		03/02/2021
	Program Curriculum Committee reviewed		**Program PSLO mapping Curriculum Committee reviewed**
AS-T in Biology	03/15/2022		03/01/2022
AA University Studies: Emphasis Natural Science	03/15/2022		03/01/2022
AA General Studies: Emphasis in Natural Science	03/15/2022		03/01/2022
AS-T Nutrition and Dietetics	03/15/2022		03/01/2022

Lassen Community College
Status of Curriculum Reviews

Natalia McClellan — 04/21/2022
Natalia McClellan, Subject Area Faculty Signature — Date

Robert Schofield — 4/21/22
Robert Schofield, Subject Area Faculty Signature — Date

Noelle Eckley — 4/21/22
Noelle Eckley, Subject Area Faculty Signature — Date

Jackson Ng — 4/13/22
Jackson Ng, Subject Area Faculty Signature — Date

4-19-22
Yuting Lin, Subject Area Faculty — Date

Tiffany Baiocchi — 4/6/22
Tiffany Baiocchi, Subject Area Faculty Signature — Date

Crystal Tobola — 4/19/22
Crystal Tobola, Subject Area Faculty Signature — Date

4/12/22
Chad Lewis, Curriculum and Academic Standards Committee Chair Signature — Date

4/21/22
Colleen Baker, Interim Dean of Instruction — Date

Appendix VI. Articulation Agreement Table

Math

2021-2022 Articulation

Math

GE/Univ	MATH 1A	MATH 1B	MATH 7	MATH 8	MATH 11A	MATH 11B	MATH 40
GE AA/AS	Area D2	Area D2	Area D2	Area D2	Area D2	Area D2	Area D2
CSU GE	Area B4	Area B4	Area B4	Area B4	Area B4	Area B4	Area B4
IGETC	Area 2A	Area 2A	Area B4	Area 2A		Area 2A	Area 2A
C-ID	MATH 211	MATH 221			MATH 120	MATH 120	MATH 110
Cal Poly Pomona	MATH 1140	MAT 1150	MAT 1060	MATH 1050		STA 1200	STA 1200
California Poly SLO	MATH 141/161/221	MATH 141&142	MATH 118/119	MATH 118	MATH 112		STAT 130/217/251
CSU Bakersfield	MATH 2310/2510	MATH 2320/2520	MATH 1060	MATH 1050	MATH 2120		MATH 2200
CSU Channel Islands	MATH 140/150	MATH 151					
CSU Chico	MATH 120	MATH 121	MATH 118		MATH 110	MATH 210	MATH 105/108
CSU Dominguez Hills	MATH 191	MATH 193			MATH 107		MATH 131/PSY 230/SOC 220
CSU East Bay	MATH 130	MATH 131		MATH 115			STAT 100
CSU Fresno	MATH 75	MATH 76			MATH 10A		CRIM 50/DS 73/MATH 11/PH 92/PSYCH 42
CSU Fullerton							MATH 120
CSU Los Angeles	MATH 2110	MATH 2120			MATH 1100		
CSU Monterey Bay	MATH 150	MATH 151	MATH 130	MATH 130	MATH 100		BUS 204/CHHS 203/STAT 100)
CSU Northridge	MATH 150A/255A	MATH 150B/255B	MATH 104/105	MATH 102/105	MATH 210		MATH 140
CSU Sacramento	MATH 24/26A/29/30	MATH 31					STAT 1
CSU Stanislaus	MATH 1410	MATH 1420					MATH 1600/1610
SFU	MATH 226	MATH 227			MATH 165		DS 212/MATH 124
SJU	MATH 30	MATH 31		MATH 18A	MATH 12		BIOL 55/BUS2 90/ECON 3/JS 15/PH 67/SOCI 15/STAT 95/MATH 165
Sonoma State Univ.	MATH 161	MATH 211					
UC Berkeley	MATH 16A/1A	MATH 16B/1B					STAT 2
UC Davis	MATH 016A/021A	MATH 016B/021B		MATH 102			STATIST 013
UC Irvine	MATH 2A/5A	MATH 2B/5B					EDUC 15/MGMT 7/PUBHLTH 7A/SOCECOL 13/STATS 7/8
UC Los Angeles	MATH 31A	MATH 31A&31B					
UC Merced	MATH 021	MATH 022	MATH 005	MATH 005			MATH 018/SOC 010
UC Riverside	MATH 9A/9B	MATH 9B/9C	MATH 5	MATH 5			PSYC 11/STAT 8
UC San Diego	MATH 20A	MATH 20B					COGS 14B/PSYC 60
UC Santa Barbara	MATH 3A	MATH 3B					COMM 87/PSTAT 5A
UC Santa Cruz	MATH 11A/19A	MATH 11B/19B	AM 3/MATH 3	MATH 2/3, AM3			STAT 5

2021-2022 Articulation

Natural Science

GE/Univ	ANTH 1	BIO 1	BIO 4	BIO 10	BIO 20	BIO 21	BIO 22	BIO 25	BIO 26	BIO32
GE AA/AS	Area A	Area A	Area A	Area A	Area A			Area A & E1	Area A & E1	Area A
CSU GE	Area B2	Area B2 & B3	Area B2 & B3	Area B2 & B3	Area B2 & B3			Area B2 & B3	Area B2 & B3	Area B2
IGETC	Area 5B	Area 5B & 5C	Area 5B & 5C	Area 5B & 5C	Area 5B & 5C			Area 5B & 5C	Area 5B & 5C	Area 5B
C-ID	ATH 110	BIOL 190	BIOL 140			BIOL 110B	BIOL 120B	BIOL 115S	BIOL 115S	
Cal Poly Pomona	ANT 1010				BIO 2060					BIO 1150&1150L
California Poly SLO	ANT 250	BIO 161			MCR 221/224			BIO 231&232		
CSU Bakersfield	ANTH 1208	BIOL 2010	BIOL 2010		BIOL 2230					
CSU Channel Islands		BIO 201	BIO 200		BIO 217			BIO 210	BIO 211	BIO 100
CSU Chico		BIOL 162	BIOL 161		BIOL 211	BIOL 103	BIOL 104	BIOL 103/104		
		SCED 102/142								
CSU Dominguez Hills	ANT 101	BIOL 120	BIO 122					BIO 250&251		BIO 102
CSU East Bay	ANTH 110	BIOL 140A	BIOL 140A/140B		BIOL 230			BIO 270		BIOL 101
								BIO 270&271		
CSU Fresno		BIOL 1A						BIO 67A/67B		
CSU Fullerton	ANTH 101	BIOL 151	BIOL 151/152					BIOL 191A&191B	BIOLE 191A&191B	
CSU Los Angeles				BIOL 1010				BIOL 2030&2040	BIOL 2030&2040	
CSU Monterey Bay	SBS 100	BIO 210	BIO 211							BIO 204
CSU Northridge	ANTH 151	BIOL 107	BIOL 106		BIOL 215	BIOL 211&212/213&212	BIOL 281	BIOL 211&212	BIO 211&212	BIOL 101
								BIOL 281	BIOL 281	
CSU Sacramento	ANTH 1							BIO 22/25	BIOL 22/26	
CSU San Marcos	ANTH 215									
SFU	ANTH 102	BIOL 230			BIO 210	BIO 220	BIOL 212	BIOL 212/220	BIOL 212/220	
SJU	ANTH 12	BIOL 10/30						BIOL 65O/66	BIOL 65O/66	
Sonoma State Univ.	ANTH 201	BIOL 130	BIOL 130/131							
UC Berkeley	ANTHRO 1	BIOLOGY 11/1A	BIOLOGY 1A					MCELLBI 32&32L	MCELLBI 32&32L	
UC Davis	ANTHRO 001	BIOLSCI 002A	BIOLSCI 002C					NE PH B010	NE PH B010	BIOLSCI 010
UC Irvine	ANTHRO 2B	BIO SCI 93	BIO SCI 93/94		BIO SCI M122&M118L	BIO SCI D170	BIO SCI E109&E112L	BIO SCI E109&E112L	BIO SCI E109&E112L	
UC Los Angeles	ANTHRO	LIFESCI 23L/7A/7B	LIFESCI 7B/7C		MIMG 10			PHYSCI 3/13	PHYSCI 3/13	LIFESCI 15
UC Merced	ANTH 005									
UC Riverside	ANTH 2	BIOL 5A								
UC San Diego	ANTH 2	BILD 1/2/3/4	BILD 1/2/3/4							BILD 10
UC Santa Barbara	ANTH 5	EEMB 3	EEMB 3							MCDB 20
		MCDB 1B	MCDB 1B							
UC Santa Cruz	ANTH 1	BIOL 20A	BIOE 20B/20C							

GE/Univ	BIO 32L	CHEM 1A	CHEM 1B	CHEM 8	CHEM 40	CHEM 40L	CHEM 45	PHSC1	PHYS 2A	PHYS 2B
GE AA/AS	Area A	Area A	Area A	Area A			Area A	Area A	Area A	Area A
CSU GE	Area B2 & B3	Area B1 & B3	Area B1 & B3	Area B1 & B3			Area B1 & B3	Area B1	Area B1 & B3	Area B1 & B3
IGETC	Area 5B & 5C	Area 5A & 5C	Area 5A & 5C	Area 5A & 5C			Area 5A & 5C	Area 5A	Area 5A & 5C	Area 5A & 5C
C-ID		CHEM 110	CHEM 120S	CHEM 102	CHEM 140	CHEM 140	CHEM 101		PHYS 105	PHYS 110
Cal Poly Pomona	BIO 1150&1150L	CHM 1210&1210L	CHM 1220&1220L						PHY 1210&1210L	PHY 1220&1220L
California Poly SLO		CHEM 110/124/127	CHEM 125/126	CHE 212					PHYS 121	PHYS 123
		CHEM 128/129	CHEM 128/129							
CSU Bakersfield		CHEM 1000	CHEM 1000&1001				CHEM 1010		PHYS 2110	PHYS 2120
			CHEM 1100&1600							
CSU Chico	SCED 142	CHEM 111	CHEM 112	CHEM 108	SCED 141	SCED 141	CHEM 107		PHYS 202A	PHYS 202B
CSU Channel Islands		CHEM 121	CHEM 122	CHEM 110			CHEM110/105		PHYS 100	PHYS 101
CSU Dominguez Hills	BIO 102&103	CHE 110&112	CHE 110&112						PHY 120	PHY 122
CSU East Bay	BIOL 100/101	CHEM 111	CHEM 112				CHEM 100/161		PHYS 125	PHYS 126
CSU Fresno		CHEM 1A/1AL/1B/1BL	CHEM 1A/1AL/1B/1BL	CHEM 3B/3BL					PHYS 2A	PHYS 2B
CSU Fullerton		CHEM 120A	CHEM 120A&120B	CHEM 200			CHEM 115		PHYS 211	PHYS 212
CSU Los Angeles				CHEM 1020			CHEM 1010			
CSU Monterey Bay	BIO 204	CHEM 110&110L	CHEM 111&111L		PHYS 121&121L	PHYS 121&121L	CHEM 109		PHYS 220&220L	PHYS 221&221L
CSU Northridge	BIOL 101	CHEM 101&101L	CHEM 102&102L		PHSC 170	PHSC 170	CHEM 100/161		PHYS 100A	PHYS 100B
CSU Sacramento		CHEM 1A	CHEM 1B	CHEM 6B			CHEM 6A		PHYS 5A	PHYS 5B
CSU San Marcos									PHYS 101	PHYS 102
SFU		CHEM 115	CHEM 215	CHEM 101&102					PHYS 111	PHYS 121&122
SJU		CHEM 1A	CHEM 1B	CHEM 30B/8/9			CHEM 30A		PHYS 2A	PHYS 2B
Sonoma State Univ.		CHEM 115A	CHEM 115B	CHEM 105			CHEM 110		PHYS 209A/210A	PHYS 209B/210B
UC Berkeley		CHEM 1A&1AL	CHEM 1B							
UC Davis		CHEM 002A/002B	CHEM 002B/002C	CHEM 008A/008B					PHYSICS 007A/007B/007C	PHYSICS 007A/007B/007C
UC Irvine		CHEM 1A	CHEM 1A&1B&1C							
		ENGR 1A	CHEM 1C&1LC							
UC Los Angeles		CHEM 20A	CHEM 20B						PHYSICS 10	
UC Merced		CHEM 002A/002B	CHEM 010	CHEM 008&008L			CHEM 001		PHYS 018&018L	PHYS 019&019L
UC Riverside		CHEM 1A&1LA	CHEM 1B&1LB				CHEM 1W			
UC San Diego		CHEM 6A/6B/6C/7L	CHEM 6B/6C/7L				CHEM 11			
UC Santa Barbara	MCDB 20	CHEM 1A&1AL /1C	CHEM 1C						PHYS 6A/6B/6C	PHYS 6B/6V
UC Santa Cruz		CHEM 1A	CHEM 1A/1B/1C/1M/1N							

ATTACHMENT B

LASSEN COMMUNITY COLLEGE MASTER PLAN OVERVIEW

Six master plans comprise the Comprehensive Institutional Master Plan. Recommendations from program reviews will be input into the selected master plans as determined by faculty in the prioritized recommendation spreadsheets. To better understand which master plan might be most appropriate for each program recommendation, a summary/objective of each plan is included below. More information can be found in the Shared Governance and Consultation Council Handbook and the Comprehensive Institutional Master Plan.

Educational Master Plan (EMP): The EMP addresses the instructional planning needs of the college.

Facilities Master Plan (FMP): The FMP addresses the physical infrastructure, facility, and maintenance needs of the campus.

Human Resources Master Plan (HRMP): The HRMP identifies and manages the administrative functions of recruitment, selection, evaluation, and professional development needs of the College to ensure a fully-staffed and highly functioning team of employees.

Institutional Effectiveness Master Plan (IEMP): the IEMP addresses college needs not addressed in other plans. These needs include research, governance, outcome assessment, and administrative operations.

Institutional Technology Master Plan (ITMP): The ITMP addresses the technology needs of the campus.

Student Services Master Plan (SSMP): The SSMP highlights the services needed to maximize the student experience through a variety of key student support services.

ATTACHMENT C

LASSEN COMMUNITY COLLEGE INSTRUCTIONAL PROGRAM REVIEW - STUDENT EVALUATION

Name of Program:_____Date Survey Completed:

_____

Current Course:_____

Overview:
Instructional programs are reviewed periodically by LCC faculty. The_____Instructional Program is currently undergoing its periodic review. The_____Instructional Program is made up of the courses leading to a degree or certificate of achievement in_. The courses in this program include: _____

As a student enrolled in one of these courses, your insight about the course and program can provide valuable information to assist the program faculty in making program improvements. This student survey is your opportunity to provide information to the program faculty. This is a student survey of the course and program, NO T_the instructor. Instructor evaluations occur at a different time.

Instructions for Completion:
Please be as objective and concise as possible when answering the following questions. Read and evaluate each question and check the responses, which most closely relate to your views. Space has been provided at the end, for any additional comments you would like to make.

Tell Us About Yourself:

1. Educational Goal: What is your educational objective at Lassen Community College? (Check all that apply).

General Education:	Degrees/Certificates:	General Interest:
Transfer to a 4-year Institution	AA/AS	Job Requirement
IGETCCertification	Certificateof Achievement Certificate of Completion	Continuing Education
CSUCertification	Certificate of Accomplishment	PersonalDevelopment
Transfer to another Community College	Title of Degree or Certificate:	

2. Your Need for this Course: Why are you taking this course?

CoreRequirementsfordegreeor certificate

Job Requirements

Elective for degree or certificate
Continuing Education
GeneralEducationcoursefordegreeor transfer
PersonalDevelopment
Other:PleaseSpecify

1. Does the course content reasonably compare with the catalog/schedule description?
   ☐ YES ☐ NO

2. Did the catalog clearly explain the order in which the courses in this program should be taken?
   ☐ YES ☐ NO

3. Was any cost for this course/program, beyond registration and books clearly identified in the catalog?
   ☐ YES ☐ NO

4. Did instructors use the required textbooks in the program?
   ☐ YES ☐ NO ☐ N/A

5. Are the textbooks purchased for this program useful to you?
   ☐ YES ☐ NO ☐ N/A

Scheduling:

6. Did the scheduling of this course meet your needs?

☐ current schedule met my needs needed morning offering needed afternoon offering needed
☐ evening offering
☐ needed one day a week schedule needed summer offering
☐ needed week-end offering
☐ needed short-term (less than semester) offering other: Please Specify
☐
☐
☐
☐

Facilities/Equipment: Do the facilities for this course/program adequately meet your needs?

7. I was provided with reasonable access to the facilities?

☐ YES ☐ NO

8. The temperature of the facilities in summer or fall is:
   - ☐ OFTEN TOO HOT FOR THE SEASON COMFORTABLE FOR THE SEASON OFTEN TOO COLD FOR THE SEASON
   - ☐ N/A
   - ☐

9. The lighting of the facilities is?

   ☐ TOO BRIGHT ☐ ADEQUATE ☐ TOO DARK ☐ N/A

10. The chairs/tables/desks are?

    ☐ ADEQUATE ☐ INADEQUATE ☐ N/A

11. Is there enough space for you to do your work in class?

    ☐ YES ☐ NO ☐ N/A

12. Please elaborate on your responses and include any additional facilities-related comments:

_____

_____

_____

13. Did the course/program provide the necessary equipment?

    ☐ YES ☐ NO ☐ N/A

14. Is enough time on equipment allowed for each student?

    ☐ YES ☐ NO ☐ N/A

15. Is equipment current?

    ☐ YES ☐ NO ☐ N/A

16. Is equipment generally in good operating condition?

    ☐ YES ☐ NO ☐ N/A

17. Describe how this course/program could be improved to better meet the needs of the students at Lassen Community College.

_____

18. Provide any additional comments on the course or program:

_____

ATTACHMENT D

LASSEN COMMUNITY COLLEGE
EDUCATIONAL PROGRAMS AND DEGREES/CERTIFICATES/LICENSES BY PROGRAM

For the purpose of the instructional review process, a program is defined as an organized sequence of courses leading to a defined objective, a degree, certificate, diploma, a license, or transfer to another institution of higher education (Title V, Section 55000).

Administration of Justice/Correctional Science
Associate in Science Degree in Administration of Justice for Transfer Associate in Art Degree in Administration of Justice
Certificate of Achievement in Administration of Justice
Certificate of Accomplishment in Administration of Justice

Agriculture
Associate in Science in Agriculture Animal Science for Transfer Associate in Science in Agriculture Business for Transfer
Associate in Arts Degree University Studies: Emphasis in Agriculture Sciences Associate in Science Degree in Agriculture Science and Technology Certificate of Achievement in Agriculture Science and Technology
Certificate of Accomplishment in Animal Science Certificate of Accomplishment in Horsemanship Certificate of Accomplishment in Agriculture Business Certificate of Accomplishment in Agriculture Irrigation

Studio Art
Associate in Arts Degree in Studio Art for Transfer

Automotive Technology
Associate in Science Degree in Automotive Technology Certificate of Achievement in Advanced Mechanics Certificate of Achievement in Engine Repair
Certificate of Accomplishment Basic Mechanics Certificate of Accomplishment in Electrical Certificate of Accomplishment in General Mechanics
Certificate of Achievement in Auto Chassis and Maintenance

Business
Associate in Science Degree in Business Administration for Transfer Associate in Science Degree in Accounting
Associate in Arts Degree in Economics for Transfer
Associate in Science Degree Administrative Office Technician Certificate of Achievement Administrative Office Technician Certificate of Achievement in Small Business Management

Child Development
Associate in Science Degree in Early Childhood Education for Transfer Associate in Arts Degree in Child Development
Certificate of Achievement in Child Development
Certificate of Accomplishment in Child Development-Associate teacher

Fire Technology
Associate in Science Degree in Fire Technology Certificate of Achievement in Fire Technology Certificate of Accomplishment in Fire Technology Certificate of Accomplishment in Basic Fire Fighter

Gunsmithing
Associate in Science Degree in Firearms Repair Associate in Science Degree in General Gunsmithing Certificate of Achievement in Firearms Repair Certificate of Achievement in General Gunsmithing
Certificate of Accomplishment in Gunsmith Machinist and Metal Finishing Certificate of Accomplishment in Long Guns Certificate of Accomplishment in Pistolsmith Certificate of Accomplishment in Riflesmith

Health Occupations/Medical Assisting
Certificate of Achievement in Medical Assisting
Certificate of Accomplishment in Administrative Medical Assisting Certificate of Accomplishment in Clinical Medical Assisting

History/Social Science/Sociology/Psychology
Associate in Arts Degree University Studies: Emphasis in Social Sciences Associate in Arts Degree General Studies: Emphasis in Social Sciences Associate in Arts Degree in History for Transfer
Associate in Arts Degree in Sociology for Transfer Associate in Arts Degree in Psychology for Transfer

Certificate of Achievement California State University General Education
Certificate of Achievement in Intersegmental General Education Transfer Curriculum

Human Services
Associate in Science Degree in Drug and Alcohol Paraprofessional Associate in Science Degree in Human Services
Certificate of Achievement in Drug and Alcohol Paraprofessional Certificate of Achievement in Human Services

Humanities
Associate in Arts Degree University Studies: Emphasis in Humanities Associate in Arts Degree in English for Transfer

Information Systems
Certificate of Achievement in Geographic Information Systems

Natural Science
Associate in Arts Degree University Studies: Emphasis in Natural Sciences Associate in Arts Degree General Studies: Emphasis in Natural Sciences Associate in Science Degree in Biology for Transfer
Associate in Science in Nutrition and Dietetics for Transfer

Physical Education
Associate in Arts Degree in Kinesiology for Transfer
Associate in Arts Degree University Studies: Emphasis in Physical Education Associate in Arts Degree General Studies: Emphasis in Physical Education

Vocation Nursing/Allied Health
Associate in Arts Degree University Studies: Emphasis in Allied Health Associate in Science Degree in Vocational Nursing
Certificate of Achievement in Vocational Nursing
Certificate of Accomplishment in Administrative Medical Assisting Certificate of Accomplishment in Clinical Medical Assisting

Welding Technology
Associate in Science Degree in Welding Technology
Two-Year Certificate of Achievement in Welding Technology One-Year Certificate of Achievement in Welding Technology
Certificate of Accomplishment in Welding Technology

Special Instructional Programs (no degrees or certificates)
Athletics Developmental Studies Work Experience

ATTACHMENT E

LASSEN COMMUNITY COLLEGE
COURSE LIST BY PROGRA

Administration of Justice

All AJ Courses) AJ 5, AJ 8, AJ 9, AJ 10, AJ 11, AJ 12, AJ 14, AJ 16, AJ 20, AJ 23, AJ 24, AJ 35, AJ 49, AJ 52A, AJ 52B, AJ 52BR, AJ 53, AJ 57, AJ 58, AJ 59, AJ 60, AJ 71, BUS 22

Agriculture

(All AGR Courses) AGR 1, AGR 2, AGR 3, AGR 4, AGR 8, AGR 9, AGR 10, AGR 11, AGR 12, AGR 13, AGR 14, AGR 19, AGR 20, AGR 21B, AGR 22, AGR 23, AGR 30, AGR 31, AGR 40, AGR 41, AGR 42, AGR 49, AGR 50, AGR 51, AGR 53, AGR 57, AGR 61, AGR 70, AGR 116

Studio Art

(All Art Courses) ART 1A, ART 1B, ART 2, ART 3, ART 6, ART 7, ART 8, ART 9, ART 10 A-D, ART 18, ART 19A-D, ART 21, ART 22, ART 23, ART 25, ART 26, ART 30, ART 36 A-D, ART 38, ART 39, ART 43A-D, ART 46, ART 49, ART 50, FILM 1

Automotive Technology

(All AT Courses) AT 49, AT 50, AT 54, AT 56, AT 58, AT 60, AT 64, AT 66, AT 68, AT 70, AT 72, AT 74, AT 76, AT 80, AT 82, AT 84, AT 88, AT 90, AT 90A, AT 91, AT 150

Business

AGR 1, AGR 2, AGR 3 (and All Bus Courses) BUS 1A, BUS 1B, BUS 1C, BUS 2, BUS 10, BUS 13, BUS 18, BUS 19, BUS 22, BUS 25, BUS 27, BUS 34A, BUS 34B, BUS 49, BUS 75, BUS 76, BUS 77, BUS 78, BUS 79, BUS 84, BUS 98, (and all CA courses) CA 31, CA 32, CA 49, CA 52, CA 53, ~~CA 54~~, CA 55, CA 56, CA 58, CA 60, CA 150 and COT 50, COT 52, COT 59 and CS 1, and ECON 10, ECON 11, and FS 91, and HO 71

Child Development

(All CD Courses) CD 11, CD 12, CD 15, CD 16, CD 17, CD 19, CD 20, CD 22, CD 23, CD 24, CD 25, CD 26, CD 27, CD 28, CD 30, CD/PSY 31, CD 49, CD 50

Fire Technology

(All FS Courses) EMT 21, and FS 3, FS 4, FS 5, FS 6, FS 8, FS 13, FS 14, FS 20, FS 23, FS 26, FS 49, FS 50, FS 51, FS 52, FS 53, FS 54, FS 56, FS 57, FS 58, FS 59, FS 60, FS 60A, FS 61, FS 64, FS 65A, FS 65B, FS 65C, FS 68, FS 70, FS 70A, FS 70B, FS 70C, FS 72, FS 72A, FS 73A, FS 73B, FS 74, FS 75, FS 76, FS 77, FS 78, FS 79A, FS 80, FS 81, FS 84, FS 85, FS 86, FS 87, ~~FS 88~~, FS 89, FS 90, FS 91, FS 92A, FS 92B, FS 92C, FS 92D, FS 92E, FS 93, FS 94, FS 95, FS 97, FS 98.18, FS 98.20, FS 98.21, FS 156

Gunsmithing

(All GSS Courses) GSS 49, GSS 50, GSS 50.01, GSS 50.03, GSS 51, GSS 51.01, GSS 51.03, GSS 51.05, GSS 51.06, GSS 52, GSS 52.01, GSS 52.02, GSS 52.03, GSS 52.04, GSS 52.05, GSS 52.06, GSS 52B, GSS 52BR, GSS 54.05, GSS 55.04, GSS 56.01, GSS 56.03, GSS 56.04, GSS 57.01, GSS 57.02, GSS 57.03, GSS 57.06, GSS 57.08, GSS 57.15, GSS 58.02, GSS 59.02, GSS 59.03, GSS 59.04, GSS 59.05, GSS 59.07, GSS 59.09, GSS 60, GSS 60.01, GSS 60.02, GSS 60.04, GSS 61.01, GSS 61.02, GSS 61.03, GSS 62.03, GSS 62.04, GSS 63.01, GSS 63.02, GSS 63.03, GSS 63.04, GSS 63.05, GSS 64.01, GSS 66.01, GSS 66.02, GSS 66.03, GSS 67.01, GSS 68.01, GSS 68.02, GSS 68.03, GSS 69.01, GSS 69.02, GSS 69.03, GSS 69.04, GSS 70, GSS 70.01, GSS 70.02, GSS 71, GSS 71.01, GSS 71.02, GSS 71.03, GSS 71.04, GSS 72, GSS 72.01, GSS 73.02, GSS 75.02, GSS 77, GSS 78, GSS 79, GSS 80, GSS 81, GSS 82, GSS 83, GSS 84, GSS 85, GSS 87, GSS 88, GSS 89, GSS 90, GSS 91, GSS 93, GSS 94, GSS 95, GSS 98.02, GSS 98.03, GSS 98.04, GSS 98.05, GSS 98.06, GSS 98.08, GSS 98.09, GSS 98.12, GSS 98.13, GSS 98.21, GSS 98.22, GSS 98.23, GSS 98.24, GSS 112, GSS 112B, GSS 114, GSS 116, GSS 117, GSS 119, GSS 120, GSS 120B, GSS 123, GSS 124, GSS 127, GSS 129A, GSS 129B, GSS 129C, GSS 130, GSS 133, GSS 134, GSS 135, GSS 136, GSS 143, GSS 147, GSS 148

History/Social Science/Sociology/

ANTH 1, ANTH 2, ANTH 3, GEOG 2, HIST 14, HIST 15, HIST 16, HIST 17, HUM 1, HUM 2, PLSC 1, PLSC 11, PSY 1, PSY 2, PSY 3, PSY 5, PSY 6, PSY 18, PSY 31/CD 31, PSY 33, SOC 1, SOC 2, SOC 3, SOC 4

Humanities

BS 156, CD 17, (and All Music Courses) MUS 1, MUS 6, MUS 7, MUS 12, ANTH 1, BUS 27, ENGL 1, ENGL 2, ENGL 3, ENGL 4, ENGL 5, ENGL 7, ENGL 9, ENGL 10, ENGL 12, ENGL 22, ENGL 33, ENGL 34, ENGL 105, ENGL 105A, ENGL 150, ENGL 151, ENGL 155, ES 1, ESL 155, FILM 1, GEOG 2, HUM 1, HUM 2, PHIL 1, PHIL 2, PHIL 10, SPAN 1, SPAN 2, SPCH 1

Human Services

(All HUS Courses) HUS 10, HUS 22, HUS 24, HUS 25, HUS 30, HUS 31, HUS 32, HUS 35, HUS 37, HUS 40, HUS 41, HUS 42, HUS 48.05, HUS 49, HUS 61

Information Systems

GIS 1, GIS 2, GIS 3, GIS 4, GIS 5

Mathematics /Natural Science

ANTH 1, ASTR 1 (and All Bio Courses) BIO 1, BIO 10, BIO 20, BIO 25, BIO 26, BIO 32, BIO 32L, BUS 84, COT 59 (and All Chem Courses) CHEM 1A, CHEM 1B, CHEM 8, CHEM 45, GEOL 1, GEOL 5, GEOG 1, (and All Phys Courses) PHY 2A, PHY 2B, PHSC 1, (and All Math Courses) MATH 1A, MATH 1B, MATH 7, MATH 8, MATH 11A, MATH 11B, MATH-40, MATH 60, MATH 156, MATH 164, MATH 187, MATH 168, and FS 91

Physical Education

HLTH 2, HLTH 25, and HO 120, HUS 30, (and All PE Courses) PE 15, PEAC 2A, PEAC 2B, PEAC 2C, PEAC 2D, PEAC 5A, PEAC 5A.02, PEAC 5B, PEAC 5C, PEAC 5C.02, PEAC 5D, PEAC 6, PEAC 6B, PEAC 6D, PEAC 7, PEAC 7D, PEAC 9, PEAC 9B, PEAC 9D, PEAC 10, PEAC 10D, PEAC 16, PEAC 32D, PEAC 34, PEAC 44

Vocational Nursing/Allied Health

CD 50, (and All HO Courses) HO 3, HO 49, HO 70, HO 71, HO 80A, HO 88, HO 120, (and All EMT Courses) EMT 21, EMT 60, EMT 61 and FS 20, (and All VN Courses) VN 50, VN 51, VN 52, VN 53, VN 54, VN 55, VN 56, VN 57, VN 58, VN 59, VN 60

Welding Technology

GSS 124, IT 22, IT 72 (and All WT Courses) WT 20, WT 21, WT 22, WT 23, WT 25, WT 31, WT 32, WT 36, WT 37, WT 38, WT 39, WT 42, WT 43, WT 44, WT 45, WT 49, WT 50, WT 51, WT 52, WT 52

<u>Special Educational Programs</u>:

Developmental Studies

(All DS Courses) DS 110, DS 111, DS 112, DS 113, DS 114, DS 115, DS 116, DS 120, DS 121, DS 122, DS 153, DS 155, DS 158, BS 156, BS 170, BS 171

Work Experience

CARS 2, CARS 151, CARS 153 (and all 49 courses) AGR 49, AJ 49, ART 49, AT 49, BUS 49, CD 49, CT 49, FS 49, GSS 49, HO 49, HUS 49, JOUR 49, WT 49, WE 1, WE 2

ATTACHMENT F

DEFINITION OF TERMS

Assessment_The process of judging student behavior or product in terms of some criteria (Clark, 1975). It includes various means of gathering information about the quantity, quality and progress of students, their performance and academic work.

Assessment Cycle___The assessment cycle in higher education is generally annual and fits within the academic year. In order to incorporate recommendations into Lassen Community College planning and budgeting processes, the LCC IPRs are conducted over the course of an academic year, culminating in September.

Assessment Results_The data/information acquired from the implementation of an assessment tool.

Assessment Tool____A tool that has been designed to collect objective data about students' attitudes and skill level. An appropriate learning outcomes assessment tool measures students' abilities to integrate a set of individual skills into a meaningful, collective demonstration. Some examples of assessment tools include standardized tests, end-of-program skills test, student inquiries, common final exams, and comprehensive embedded test items.

C-ID__Course Identification Number

Core Course_Courses within a discipline specifically required for a degree or certificate.

Course Embedded__The review of materials generated in the classroom. In addition to Assessment providing a basis for grading students, such materials allow faculty to evaluate approaches to instruction and course design.

Description/Evaluation_____A subsection provided within the IPR to allow faculty to identify and analyze the current situation within the program to justify recommended changes to the current situation.

Direct Cost per Program____All identified direct costs charged to a program as defined by TOP (e.g., instructor salaries, supplies, etc.).

Direct Measures____Students display knowledge and skills as they respond directly to of Learning the assessment itself.

Full-time Equivalent_The amount of instructional employee time expressed in a proportion to that Faculty (FTEF) required in a full-time teaching position, with 1.0 representing one full-time position. FTE is derived by dividing the amount of time taught in a position by the amount of teaching hours required in a corresponding position.

Full-time Equivalent_For state accounting purposes, an FTES is a full-time student who attends 15 Student (FTES) hours per week for 35 weeks (two primary terms). The rule is: 15 hours x 35 weeks = 525 total WSCH = 1 FTES. To determine FTES, multiply number of students by the number of hours per week and number of weeks, then divide by 525

General Education or_____For the purposes of this review, general education refers to courses Transfer

Programs satisfying Associate degree requirements, CSU Certification, or IGETC.

Indirect Measures of Assessment tools such as surveys and interviews, which ask Learning student to reflect on their learning rather than to demonstrate it.

IGETC Intersegmental General Education Transfer Curriculum - completion of the IGETC guarantees that a transferring community college student has satisfied the lower division general education requirements of the CSU/UC systems.

Instructional Program For the purpose of this review, a program shall be defined as follows: a program is an organized `sequence course or series of courses leading to a definite objective, a degree, certificate, diploma, a license, or transfer to another institution of higher education.

Planning Agenda A subsection provided within the IPR to allow faculty to make recommendations for improvement of their programs. Recommendations are divided into those that require institutional support and those to be implemented by the program faculty.

Prerequisite A condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in a course or program.

Program Learning Outcome A measurable educational objective as a consequence of participation in an organized sequence of courses (i.e. ability to perform specific work place competencies).

Program Outcome A measurable objective as a consequence of participation in an organized sequence of courses (i.e. employment, receipt of degree or certificate].

Recommended Preparation A condition of enrollment that a student is advised, but not required, to meet before, or in conjunction with, enrollment in a course or program.

Statistical Data The Offices of Institutional Research and Instruction will provide departmental staff with the minimum statistical data as required by the state-wide accountability model.

Student Learning Outcome An overarching specific observable characteristic developed by local faculty that allows them to determine or demonstrate evidence that learning has occurred as result of a specific course, program, activity, or process.

Weekly Student Contact Hours (WSCH) The class hour or contact hour is the basic unit of attendance for computing average daily attendance. A contact hour is the basic period of not less than fifty minutes of scheduled instruction. Weekly student contact hours are the total number of student contact or class hours per week.

WSCH per FTE A ratio of weekly student contact hours to full-time faculty equivalency. This is a measure of faculty load.