

# Lassen College Automotive Technology Program Review 2022

**LASSEN COMMUNITY COLLEGE**

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## SECTION 1: ACADEMIC PLANNING

### I. . Program Overview, Objectives, and Student Learning

#### Outcomes

The Automotive Technology Program at Lassen Community College currently consists of 18 individual courses. The student can earn an A.S. Degree in Automotive Technology, earn a Certificate of Achievement in Advanced Mechanics or Engine Repair, or earn a Certificate of Accomplishment in General Mechanics, or Electrical. A student could also take individual courses as needed. A student could also take courses approved by the California Bureau of Automotive Repair to prepare them to take the test to earn their California smog inspector license.

The Automotive Technology Program is designed to prepare the student with the necessary skills to acquire an entry-level position in the automotive industry. The program is also designed to assist those already employed in the industry and those in the community to improve their skills. The Automotive program offers course work in engine repair, chassis electrical, automatic transmissions and other automotive components mirroring ASE certification test standards. The curriculum is updated with the assistance of industry advisory committee. There is also a pathway for a student new to the automotive industry to prepare for and qualify to take the state of California Bureau of Automotive Repair smog inspector license examination. Students in the air conditioning class are also prepared for and encouraged to take the EPA 609 certification which is required to handle and purchase automotive refrigerants. Students are also able to take dealer specific training including the Subaru U and Ford ACE programs.

#### **Objectives for as A.S. Degree in Automotive Technology**

As an Automotive major, you will:

- Study the diagnostic procedures necessary to determine simple and complex problems, fix them and provide ongoing maintenance.
- Develop an in-depth understanding of why cars work the way they do, allowing you to better fix and maintain vehicles, and provide a higher level of service.
- Identify terms associated with automobiles as well as automotive components along with basic identification and proper use of various hand and power tools and shop equipment.

#### **Program Student Learning Outcomes**

Upon completion of the **Automotive Technology Associate in Science Degree** the student will be able to:

- 1 Diagnose a specific automotive malfunction; execute the appropriate corrective steps and verify the problem has been resolved. Communicate the diagnosis to the customer.
- 2 Perform general maintenance and upkeep procedures on a variety of automobiles.

#### **Student Learning Outcomes for a Certificate of Achievement in Advanced Mechanics**

Upon completion of the **Certificate of Achievement – Advanced Mechanics** the student will be able to:

- 1 Diagnose common automotive drivetrain malfunctions, execute the appropriate corrective steps and verify the problem has been resolved.
- 2 Perform automotive preventative maintenance according to industry standards.
- 3 Perform standard documentation found on automotive repair orders.

#### **Student Learning Outcomes for a Certificate of Achievement in Engine Repair**

Upon completion of the **Certificate of Achievement – Engine Repair** the student will be able to:

- 1 Diagnose various automotive engine systems malfunctions: execute the appropriate corrective steps and verify the problem has been resolved.
- 2 Perform automotive preventative maintenance according to industry standards.

3 Perform standard documentation found on automotive repair orders.

### **Student Learning Outcomes for a Certificate of Accomplishment in Basic Mechanics**

Upon completion of the **Certificate of Accomplishment – Basic Mechanics** the student will be able to:

1 Diagnose basic automotive drivetrain malfunctions; execute the appropriate corrective steps and verify the malfunction has been resolved.

2 Perform automotive preventative maintenance according to industry standards

3 Perform standard documentation found on automotive repair orders.

### **Student Learning Outcomes for a Certificate of Accomplishment in Electrical**

Upon completion of the **Certificate of Accomplishment – Electrical** the student will be able to:

1 Diagnose basic automotive electrical system malfunctions; execute the appropriate corrective steps and verify the problem has been resolved.

2 Perform preventative maintenance and basic electrical system testing to verify proper operation of automotive starting, charging, and lighting systems.

### **Student Learning Outcomes for a Certificate of Completion in Automotive Chassis and Maintenance**

Upon completion of the **Certificate of Completion – Automotive Chassis and Maintenance** the student will be able to:

1. Inspect steering and suspension components for wear.

2. Perform common chassis alignment adjustments.

3. Perform common brake system repairs.

4. Perform automotive maintenance in accordance with industry standards.

5. Perform standard documentation found on automotive repair orders.

### Description/Evaluation:

- a. Describe and evaluate the program objectives against the LCC strategic plan, specifically the mission statement and strategic goals [available online or in the current catalog]. Maps may be utilized to help illustrate ideas.

The Automotive Technology program compliment Lassen College's mission statement, which is included below. The Automotive Program provides the student with skills needed to diagnose and repair vehicles in the home setting as well as providing the student with skills to obtain gainful employment and to advance their careers in the automotive industry. Students can earn an AS Degree in Automotive Technology as well as five program certificates. Students are prepared to take industry certificates such as ASE certifications and can qualify to take the California Bureau of Automotive Repair smog inspector license.

### **Mission**

Lassen Community College provides 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.

### **Strategic Goals**

**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 college strategic goals are listed above and the data is listed in the IPR data addendum below. The strategic goals data indicates the automotive program show alignment with the achievement being 91.8% of course SLO's to the strategic goals in the assessment period.

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).



**Institutional Learning Outcomes**

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.	<b>Measure:</b> Assess through the aligned SLOs from the academic year. <b>Target:</b> 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.	<b>Measure:</b> Assess through the aligned SLOs from the academic year. <b>Target:</b> 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.	<b>Measure:</b> Assess through the aligned SLOs from the academic year. <b>Target:</b> 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.	<b>Measure:</b> Assess through the aligned SLOs from the academic year. <b>Target:</b> 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.**

Starting in the fall of 2020 the college began a campus wide mapping project to better show the alignment in learning outcomes. Course student learning outcomes (SLO's) were mapped to the district General Education Student Learning Outcomes (GESLO's) and the Institutional Student Learning Outcomes (ISLO's) Even if a course was not in the GE pattern, they were still mapped to the GESLO's and ISLO's. Program Student Learning Outcomes (PSLO's) were also mapped to course SLO's. This had been done previously, however as curriculum was updated in various programs, the maps were not updated. While assessing our IPR process we realized this and made updating course and program learning map review a requirement for all programs writing a program review. This will now assure course and program SLO's are in alignment with ISLO's moving forward.

Data for PSLO assessment came from the IPR Data Addendum, which is listed below. This data shows students met most targets with the average achieved being 82.9%. There were three PSLO's that received 0% and this was because a course in that certificate of completion was not offered in this data collection period. Another PSLO was assessed at 66.7% and this was in the Engine Repair Certificate of Achievement. A lab activity for these courses will be added to cover that specific PSLO.

Discussions involving learning outcomes assessment, labor market data, and program enrollment data has taken place in several forums for the automotive program. There has been numerous discussions in the monthly CTE Division meetings regarding SLO assessment and curriculum changes needed to improve these. Labor market and enrollment data were also discussed at the automotive advisory board meeting to look for ideas for improvement. Below are listed the data collection results from this mapping process for the automotive technology program.

Data for GESLO's also are listed in the addendum below. The data indicates that the automotive program contribute well to overall General Education SLO's, especially considering that none of the auto courses are general education courses. Overall, automotive courses achieved 75.1% in this area. Four out of the eight GESLO's were met with 85% or higher. The remaining areas ranged from 58.4% to 64.1%. This is still good considering the remaining GESLO's were in the areas of science, history and physical health.

Data for ISLO assessment came from two data packages 1) Post Graduate Survey on Institutional Learning Outcomes (ISLO). The other from "Instructional Program Review (IPR) Data –ADDENDUM" for the automotive program. The addendum data results indicate the auto program contribute strongly to overall ISLO's, achieving 91.3% alignment. The course and program learning outcomes for the automotive program will continue to align with ISLO's, GESLO's and to the college mission and vision.



**Academic Year: 2017-18, 2018-19, 2019-20 and 2020-21**

**The data in the addendum is in addition to the previously issued IPR Data document.**

**This document provides additional data to previously provided AT program Student Learning Outcomes (SLO's) assessment results, and subsequent contributions of those outcomes results to higher level learning outcomes of the AT program, and to the Strategic Goals of the institution.**

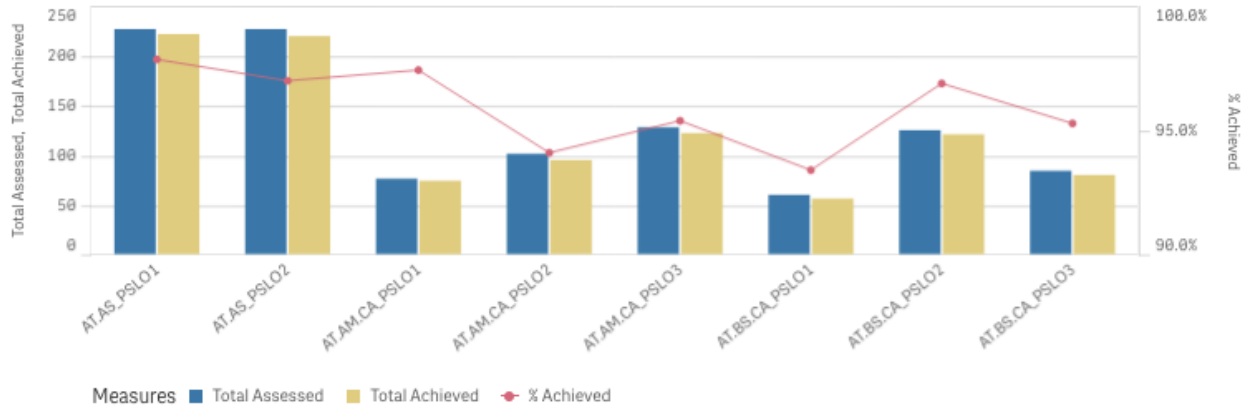
**Therefore, all data listed in this report is based solely on the assessment results of AT Program Course SLO's being mapped to the higher-level learning outcomes of the institution and institutional Strategic Goals.**

**PROGRAM LEARNING OUTCOMES (PSLOs)****Learning Outcomes Descriptions + Results**

Learning Outcomes	Assessment Method	Total Assessed	Total Achieved	% Achieved
Totals		2,005	1,891	82.9%
AT.AM.CA_PSLO1	Diagnose common automotive drivetrain malfunctions, execute the appropriate corrective steps and verify the problem has been resolved.	76	74	97.4%
AT.AM.CA_PSLO2	Perform automotive preventative maintenance according to industry standards.	101	95	94.1%
AT.AM.CA_PSLO3	Perform standard documentation found on automotive repair orders.	128	122	95.3%
AT.AS_PSLO1	Diagnose a specific automotive malfunction; execute the appropriate corrective steps and verify the problem has been resolved.	227	222	97.8%
AT.AS_PSLO2	Perform general maintenance and upkeep procedures on a variety of automobiles.	227	220	96.9%
AT.BS.CA_PSLO1	Diagnose basic automotive drivetrain malfunctions; execute the appropriate corrective steps and verify the problem has been resolved.	60	56	93.3%
AT.BS.CA_PSLO2	Perform automotive preventative maintenance according to industry standards	125	121	96.8%
AT.BS.CA_PSLO3	Perform standard documentation found on automotive repair orders.	84	80	95.2%
AT.BS.COA_PSLO1	Diagnose basic automotive drivetrain malfunctions; execute the appropriate corrective steps and verify the problem has been resolved.	32	32	100.0%
AT.BS.COA_PSLO2	Perform automotive preventative maintenance according to industry standards	104	100	96.2%
AT.BS.COA_PSLO3	Perform standard documentation found on automotive repair orders.	125	121	96.8%
AT.CM.COC_PSLO1	Inspect steering and suspension components for wear	0	0	0.0%
AT.CM.COC_PSLO2	Perform common chassis alignment adjustments	0	0	0.0%
AT.CM.COC_PSLO3	Perform common brake system repairs	0	0	0.0%
AT.CM.COC_PSLO4	Perform automotive maintenance in accordance with industry standards.	20	19	95.0%
AT.CM.COC_PSLO5	Perform standard documentation found on automotive repair orders.	20	19	95.0%
AT.E.CA_PSLO1	Diagnose basic automotive electrical system malfunctions; execute the appropriate corrective steps and verify the problem has been resolved.	113	112	99.1%
AT.E.CA_PSLO2	Perform preventative maintenance and basic electrical system testing to verify proper operation of automotive starting, charging, and lighting systems.	137	132	96.4%
AT.E.COA_PSLO1	Diagnose basic automotive electrical system malfunctions; execute the appropriate corrective steps and verify the problem has been resolved.	65	64	98.5%
AT.E.COA_PSLO2	Perform preventative maintenance and basic electrical system testing to verify proper operation of automotive starting, charging, and lighting systems.	76	75	98.7%
AT.ER.CA_PSLO1	Diagnose various automotive engine system malfunctions; execute the appropriate corrective steps and verify the problem has been resolved.	67	65	97.0%
AT.ER.CA_PSLO2	Perform automotive preventative maintenance according to industry standards.	50	50	100.0%
AT.ER.CA_PSLO3	Perform standard documentation found on automotive repair orders.	168	112	66.7%

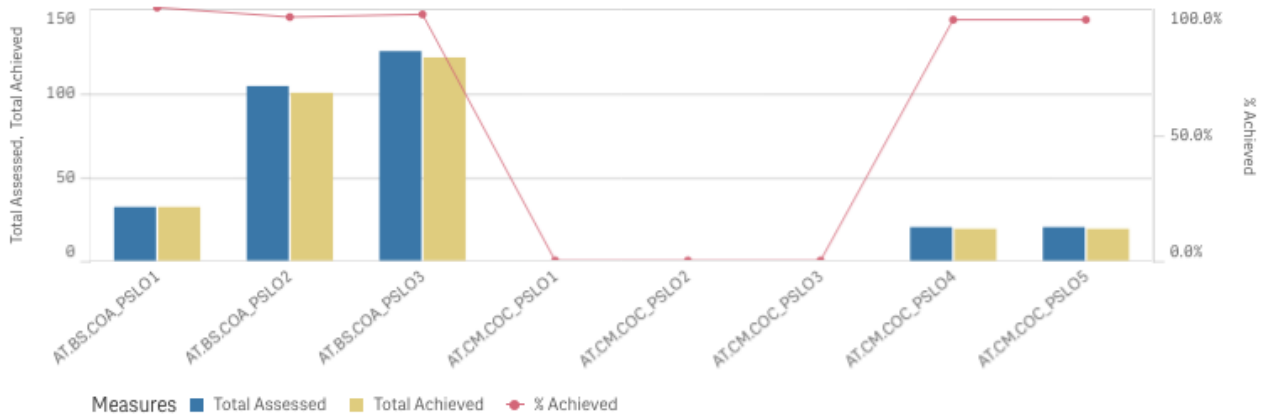
***AT Program PSLO's***

**Learning Outcomes Assessment Results**



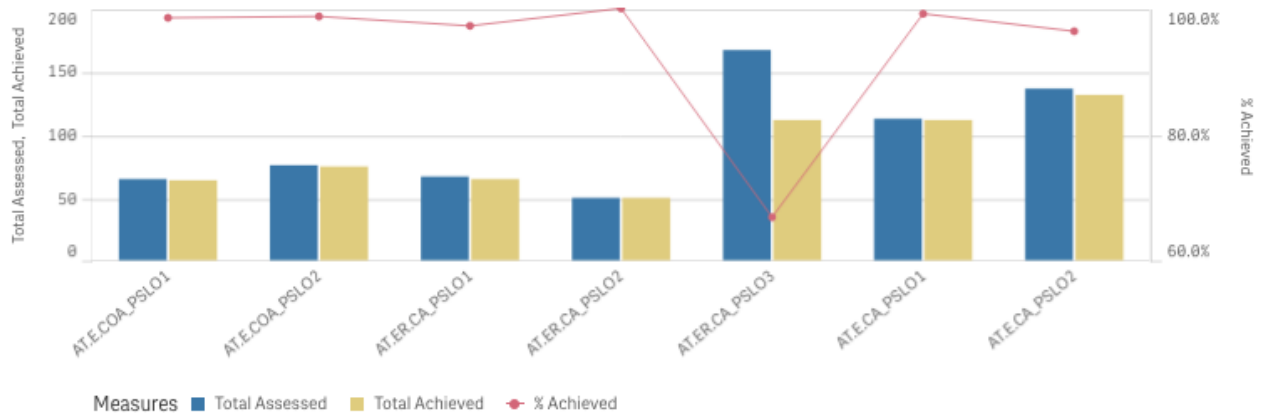
*AT Program PSLO's (AT.AS, AT.AMCA, and AT.BS.CA)*

**Learning Outcomes Assessment Results**



*AT Program PSLO's (AT.BS.COA and AT.CM.COC)*

**Learning Outcomes Assessment Results**



*AT Program PSLO's (AT.E.COA, AT.ER.CA, and AT.E.CA)*

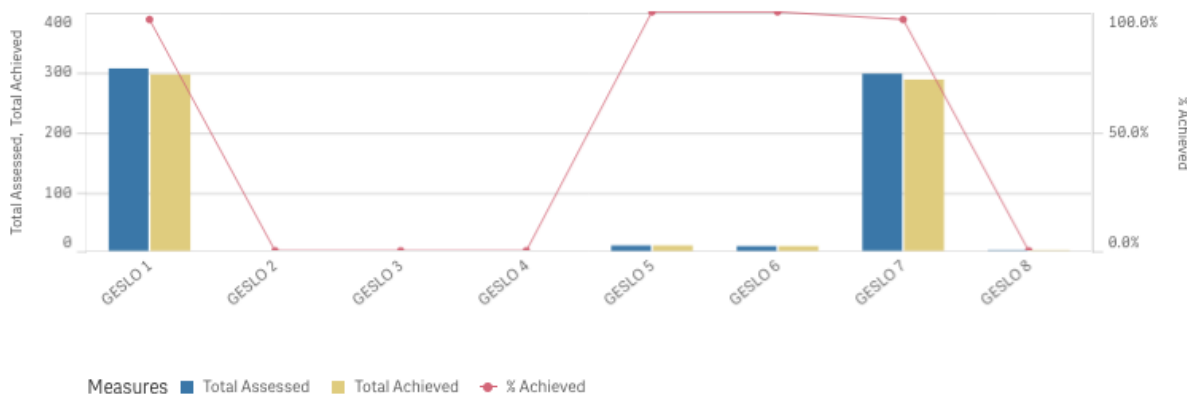
**GENERAL EDUCATION LEARNING OUTCOMES (GESLOs)**

**Learning Outcomes Descriptions + Results**

Learning Outcomes	Assessment Method	Total Assessed	Total Achieved	% Achieved
Totals		623	603	49.2%
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-	307	297	96.7%
GESLO 2	Explain and analyze relationships between science and other human activities.	0	0	0.0%
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-	0	0	0.0%
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-	0	0	0.0%
GESLO 5	Engage in verbal communication by participating in discussions, debates, and oral presentations utilizing proper rhetorical perspective, reasoning and advocacy, organiza-	9	9	100.0%
GESLO 6	Compose effective written communications and essays with correct grammar, spelling, punctuation and appropriate language, style and format utilizing academically ac-	8	8	100.0%
GESLO 7	Analyze, evaluate and explain theories, concepts and skills within varied disciplines using inductive and deductive processes and quantitative reasoning and application.	298	288	96.6%
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	1	0.0%

*AT Program Alignment with and Contribution to GESLO's*

**Learning Outcomes Assessment Results**



*AT Program Alignment with and Contribution to GESLO's*

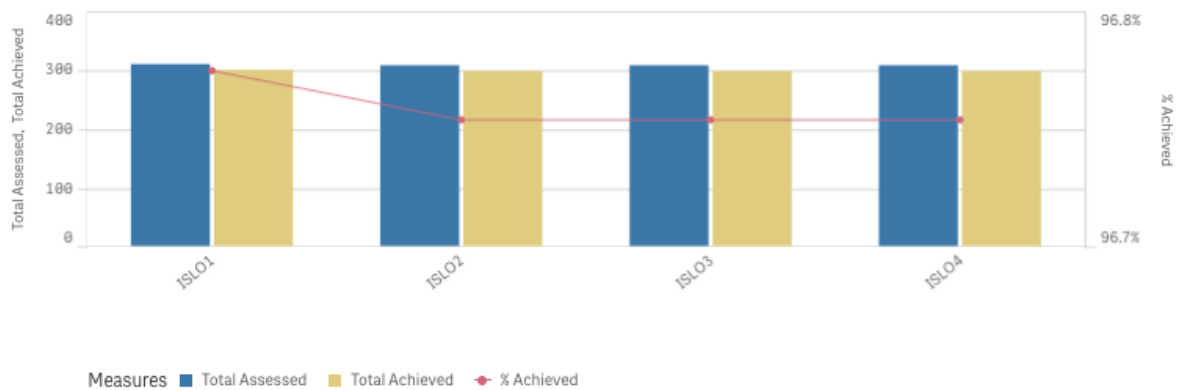
**INSTITUTIONAL LEARNING OUTCOMES (ISLOs)**

**Learning Outcomes Descriptions + Results**

Learning Outcomes	Assessment Method	Total Assessed	Total Achieved	% Achieved
Totals		1,234	1,194	96.8%
ISLO1	Communication: Ability to listen and read with comprehension and the ability to write and speak effectively.	310	300	96.8%
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	308	298	96.8%
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	308	298	96.8%
ISLO4	Personal/Interpersonal Responsibility: Ability to develop and apply strategies to set realistic goals for personal, educational, career, and community development; ability to ap-	308	298	96.8%

*AT Program Alignment with and Contribution to ISLO's*

**Learning Outcomes Assessment Results**



*AT Program Alignment with and Contribution to ISLO's*

**LCC STRATEGIC GOALS**

**Learning Outcomes Descriptions + Results**

Learning Outcomes	Assessment Method	Total Assessed	Total Achieved	% Achieved
Totals		3,084	2,984	96.8%
SG 1	Institutional Effectiveness: Provide the governance, leadership, integrated planning and accountability structures, and processes to effectively support an inclusive learning envi-	618	598	96.8%
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	926	896	96.8%
SG 3	Resource Management: Manage human, physical, technological and financial resources to sustain fiscal stability and to effectively support the learning environment.	616	596	96.8%
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	924	894	96.8%

*AT Program Alignment with LCC Strategic Goals*

**Learning Outcomes Assessment Results**



*AT Program Alignment with and Contribution to LCC Strategic Goals*

- 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.**

An agreement was made between the college and Lassen High School to expand dual enrollment and the automotive program was included. The AT 50 Car Care Basics, AT 54 Brakes, AT 56 Steering and Suspension, and AT 80 Basic Electrical courses are now scheduled to enable juniors and seniors from the high school to skip first period if they qualify and take these automotive courses. Students that complete all of these courses will earn a Certificate of Accomplishment in Basic Mechanics. The first cohort took AT 50 and started the semester off with 31 students.

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

The automotive program and all CTE programs could benefit from marketing and advertising. A promotional video was created for each CTE program and the link to the video is [here](#). A brochure was recently created by our outreach coordinator to advertise the dual enrollment program at the high school.

**LASSEN COMMUNITY COLLEGE**

# **AUTO PROGRAM**

**Now Accepting  
Students  
Grades 10 and Up!**

**Get a Certificate of  
Accomplishment in Basic  
Mechanics, and take a step  
toward an auto career!**

**Lube Technician  
Brakes and Tires  
Smog Inspector  
Lot Attendant**

**Start Making up to  
\$24.50/Hour\***

**Our college  
partners with Ford  
and Subaru to give  
you the required  
training needed for  
hiring!**



\*Amount based on average wage of Automotive Service Technicians and Mechanics in California (onafonline.org)

# CLASS LIST

## Pathway Classes Start In-Person Fall 2022!

- AT 50: Care Care Basics.....Units: 3
- AT 54: Brakes.....Units: 3
- AT 56: Steering and Suspension.....Units: 3
- AT 80: Basic Electrical.....Units: 3

For more information on this program, contact

Janet Marinoni

[jmarinoni@lassencollege.edu](mailto:jmarinoni@lassencollege.edu)

(530) 249-9997



### Planning Agenda:

There is a need to improve the course and program learning outcomes for the automotive program. This was made evident over the last two years during the campus wide mapping process of learning outcomes to general education and institutional learning outcomes. The need to “close the loop” in learning outcomes assessment also became clear. A method needs to be developed and implemented to review the results of the course SLO’s before each course is taught. This will allow the instructor to see what learning outcomes were assessed and what method was used. Perhaps a better method of assessment will have more meaningful results. This will also be helpful in updating learning outcomes through the curriculum process if the need for improvement is found.



The auto program is lacking in courses for hybrid and electric vehicles. Curriculum needs to be created and tools and equipment needs to be purchased to accomplish this. These will be listed later in the program review.

The program would really benefit from a marketing campaign. There is little or no advertising for many CTE areas. The COVID pandemic has really impacted what marketing was previously used. Advertising to showcase the Subaru U and Ford ACE programs would improve enrollment. The smog program should be highlighted as well.

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 Assess and improve course SLO’s and PSLO’s. Implement improved learning outcomes assessment. Implement a method of reviewing previous course SLO results before each course is taught to improve learning outcomes based on data.

#2 Write curriculum for hybrid and electric vehicles.

#3. Create marketing materials for the auto program. All CTE programs would benefit from a formal advertising program.

## II Student Outcomes

### A. Trends and Patterns in Student Outcomes

The COVID pandemic has most certainly impacted enrollment in the auto program. The online

requirements made it difficult for students and staff alike. An improvement to the program as a result of this is the courses are taught using the hybrid modality and this leaves more time for lab work. The hands-on work benefits student learning. The dual enrollment program with the high school has improved enrollment and continues to be successful. It was discovered that scheduling of courses created a barrier for students to earn local certificate in the automotive program. The two year advising plan was updated and new local certificates will be created to make it so students can earn a certificate of achievement easier and in a timely manner.

Description/Evaluation:

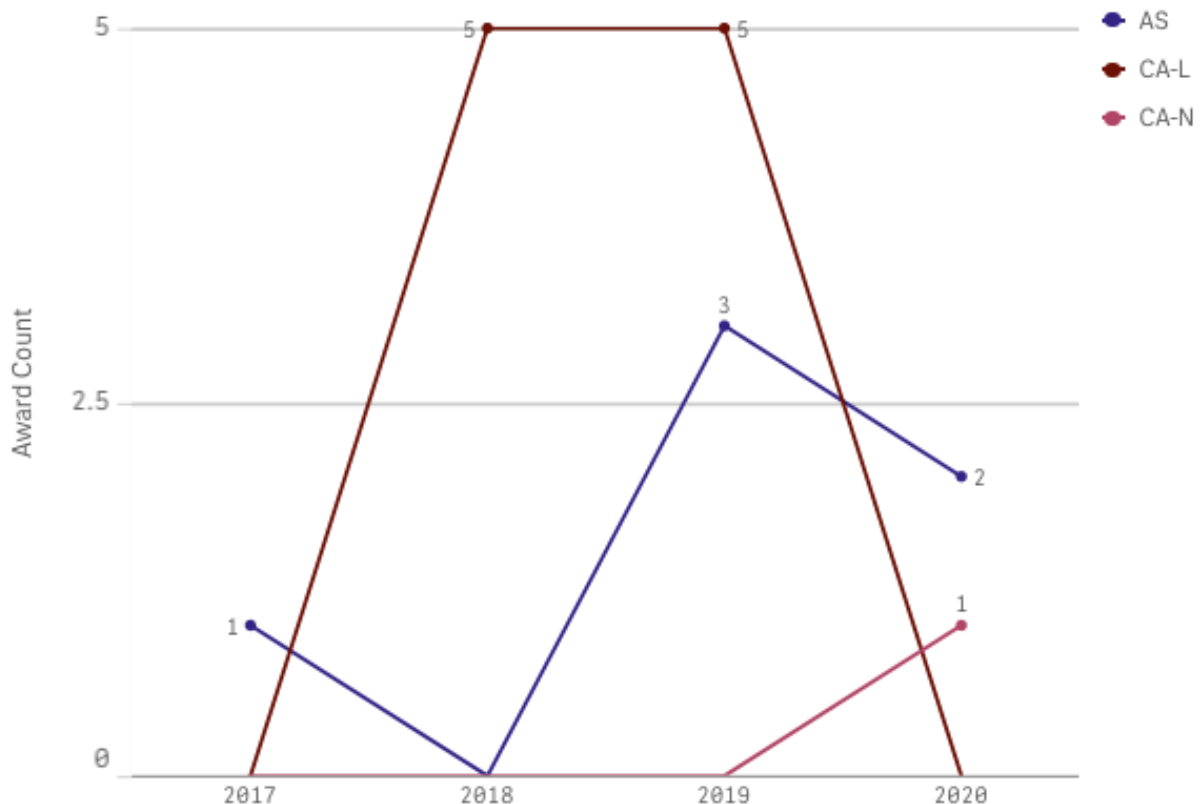
1. Provide in tabular form followed by an analysis
  - a. Number of degrees and certificates awarded during the last four years.

**Available awards for the Automotive Technology Program:**

- 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

## AWARDS

**Decdegrees and Certificates Awarded By Academic Year**



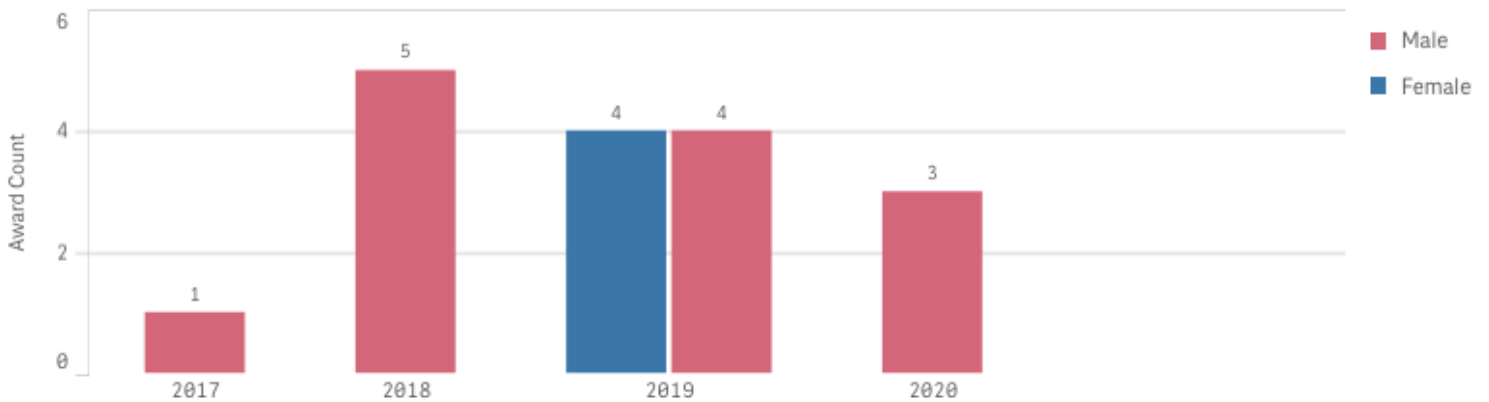
### Awards by Academic Year

Academic Year	Award	Award Count
<b>Totals</b>		<b>17</b>
2017	AS Automotive Technology	1
2018	Cert. of Achievement Advanced Mechanics	2
2018	Cert. of Achievement Engine Repair	3
2019	AS Automotive Technology	3
2019	Cert. of Achievement Advanced Mechanics	4
2019	Cert. of Achievement Engine Repair	1
2020	AS Automotive Technology	2
2020	Cert. of Achievement Advanced Mechanics	1

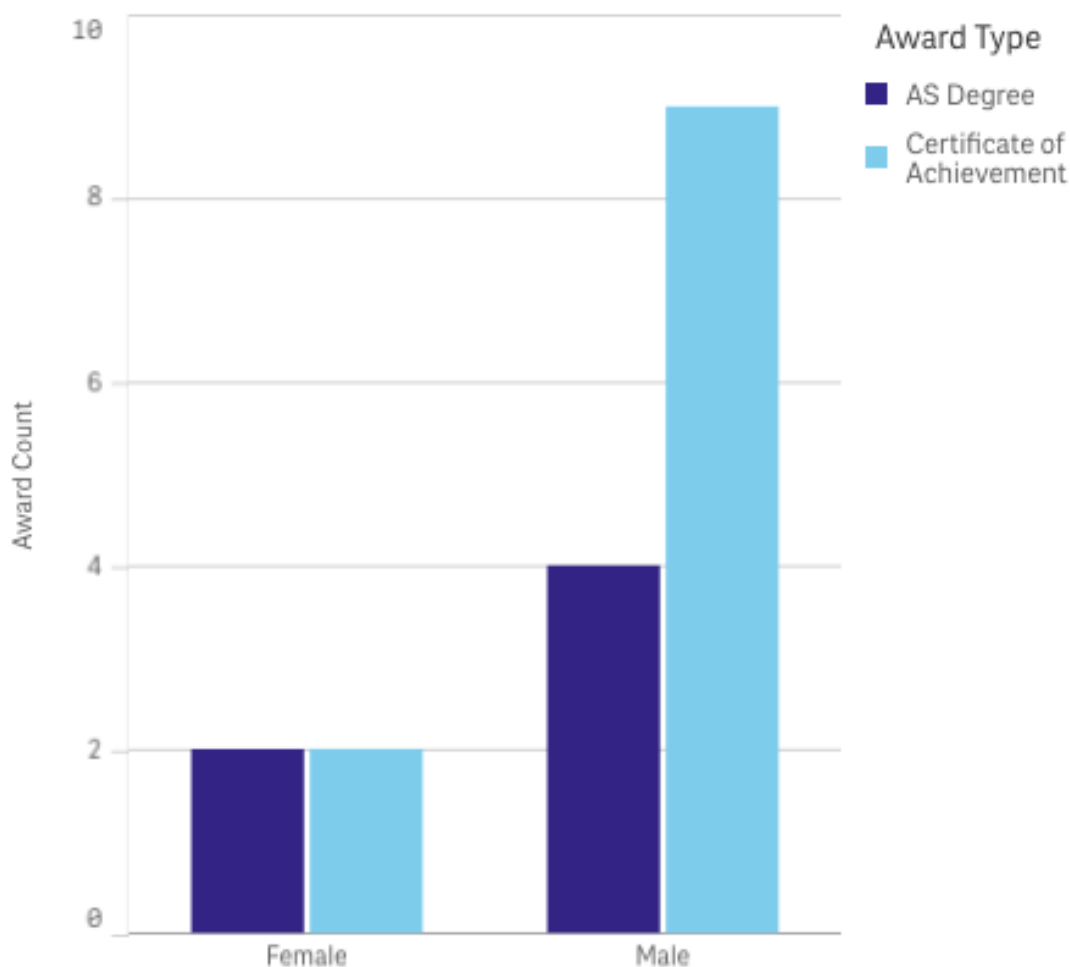
### Degrees and Certificates Awarded By Academic Year and Gender

TER_ACADEMIC_...					
Gender	2017	2018	2019	2020	
Female	-	-	4	-	
Male	1	5	4	3	

### Degrees and Certificates Awarded By Academic Year and Student Gender



### Awards by Award Type and Student Gender



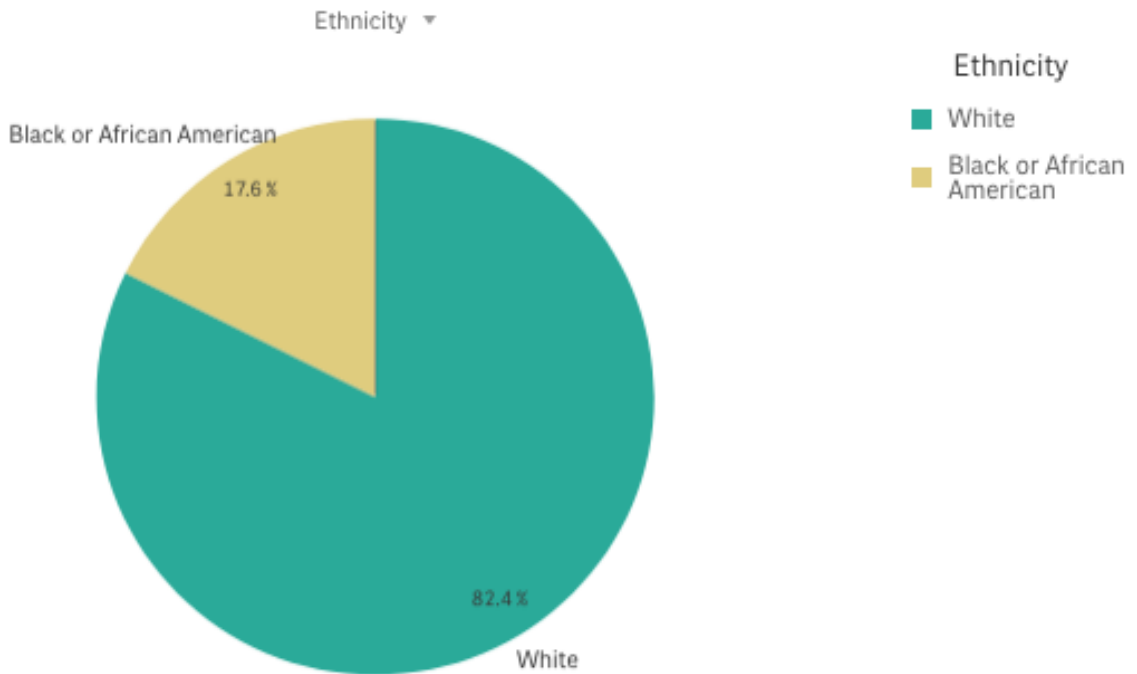
### Awards by Academic Year and Ethnicity

Award Type	Ethnicity	Academic Year			
		2017	2018	2019	2020
<b>AS</b>		1	-	3	2
	White	1	-	3	1
	Black or African American	-	-	-	1
<b>CA-L</b>		-	5	5	-
	White	-	5	3	-
	Black or African American	-	-	2	-
<b>CA-N</b>		-	-	-	1
	White	-	-	-	1

### Awards by Type and Academic Year

Award Type	Academic Year			
	2017	2018	2019	2020
Cert. of Achievement Advanced Mechanics	-	2	4	1
AS Automotive Technology	1	-	3	2
Cert. of Achievement Engine Repair	-	3	1	-

### Awards by Ethnicity

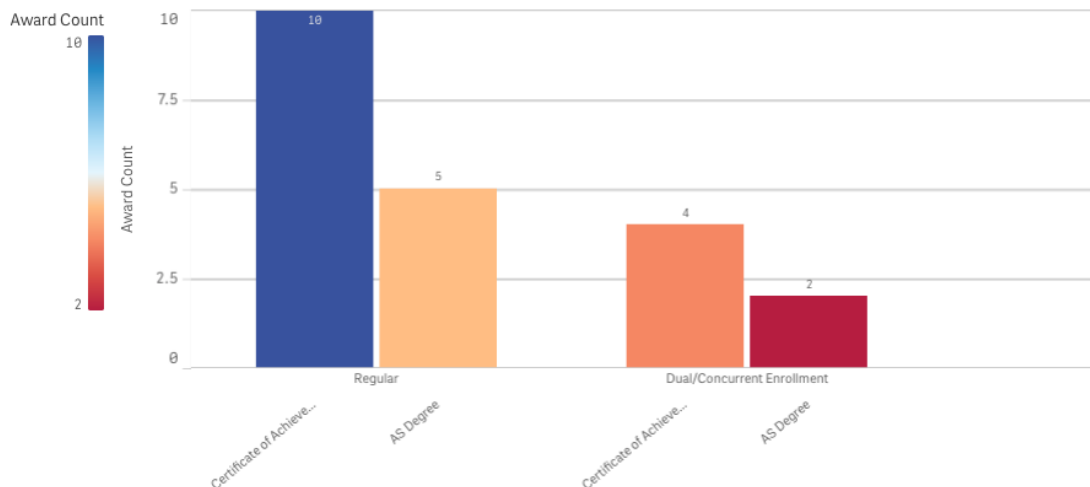


**CalWorks: Special Program Awards Data not included as N<10**  
**EOPS: Special Program Awards Data not included as N<10**  
**Disabled: Special Program Awards Data not included as N<10**  
**CARE: Special Program Awards Data not included as N<10**  
**Foster Youth: Special Program Awards Data not included as N<10**

Awards by Academic Year, Award Type, and Student Type

Student Type	Award Type	Academic Year			
		2017	2018	2019	2020
<b>Regular</b>		1	5	8	1
	AS Degree	1	-	3	1
	Certificate of Achievement	-	5	5	-
<b>Dual/Concurrent Enrollment</b>		-	2	2	2
	AS Degree	-	-	1	1
	Certificate of Achievement	-	2	1	1

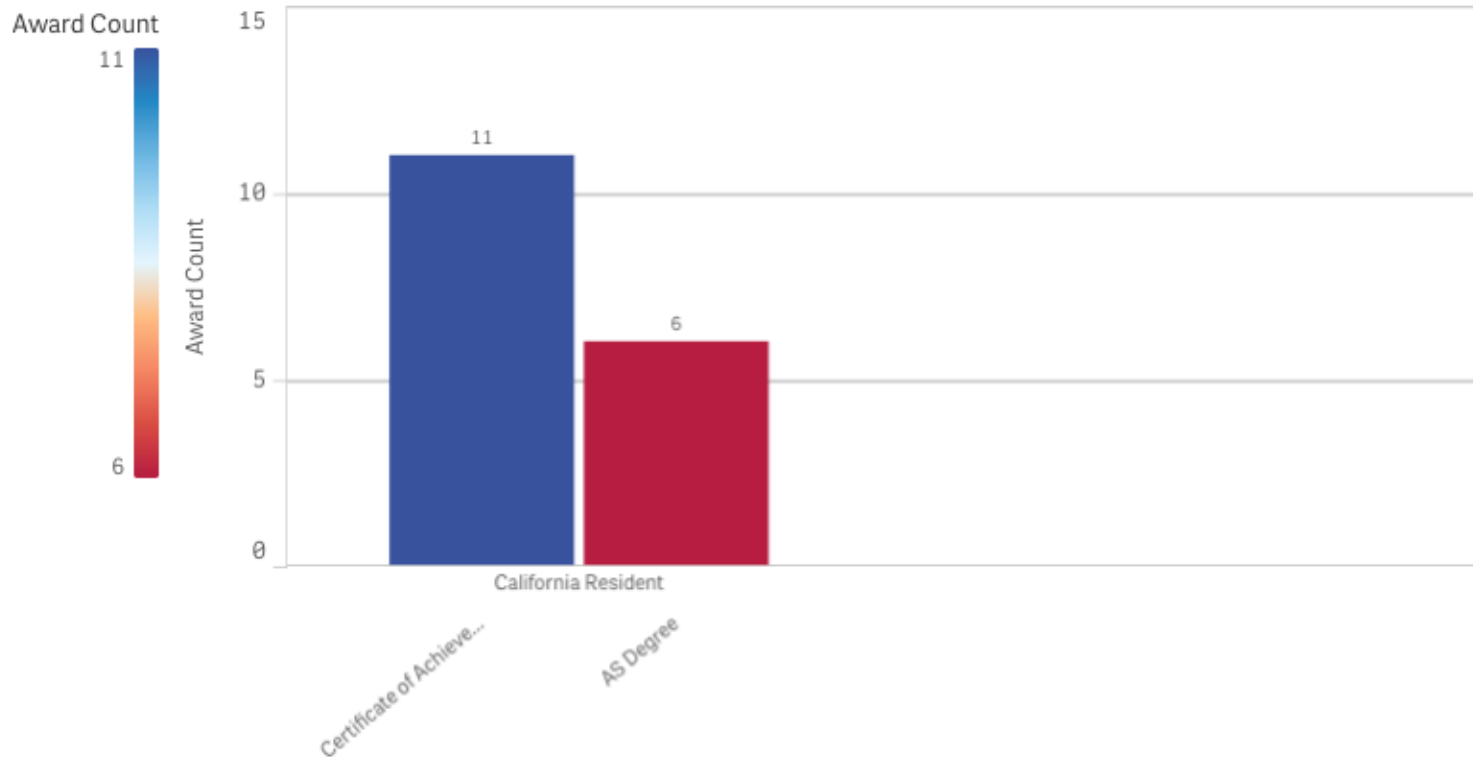
Awards by Award Type and Student Type



**Awards by Academic Year, Award Type, and Residency Status**

Residency ▼	Award Type ▼	Academic Year ▼			
		2017	2018	2019	2020
<b>California Resident</b>		<b>1</b>	<b>5</b>	<b>8</b>	<b>3</b>
AS Degree		1	-	3	2
Certificate of Achievement		-	5	5	1

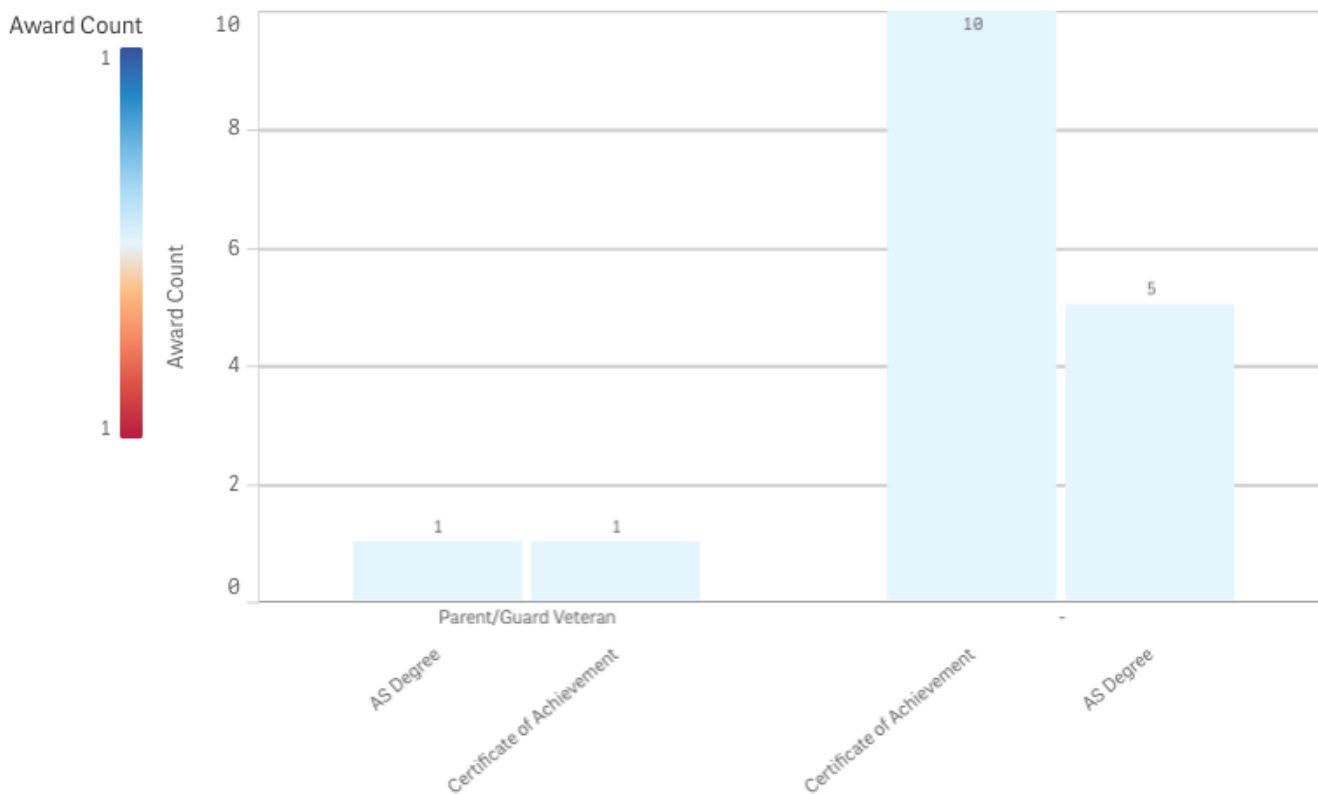
**Awards by Award Type and Residency Status**



**Awards by Academic Year, Award Type, and Veteran/Military Dependent Status**

	Academic Year ▼			
	2017	2018	2019	2020
-	1	5	6	3
AS Degree	1	-	2	2
Certificate of Achievement	-	5	4	1
<b>Parent/Guard Veteran</b>	-	-	2	-
AS Degree	-	-	1	-
Certificate of Achievement	-	-	1	-

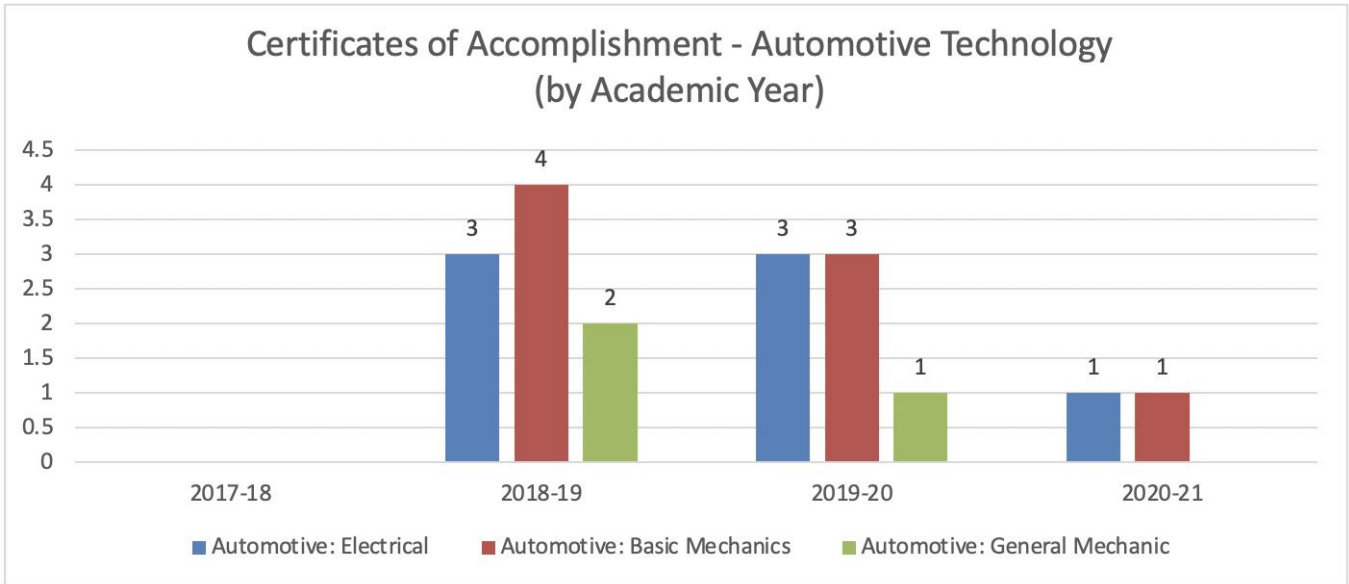
**Awards by Award Type and Veteran/Military Dependent Status**



**Local Certificates:**

**Certificates of Completion and Accomplishment - Automotive Technology**

Certificates Title	2017-18	2018-19	2019-20	2020-21
Automotive: Electrical		3	3	1
Automotive: Basic Mechanics		4	3	1
Automotive: General Mechanic		2	1	



**b. Transfer numbers for the last four years**

All of the automotive courses are non-transferable so it is extremely rare for an auto student to transfer to a four year institution.

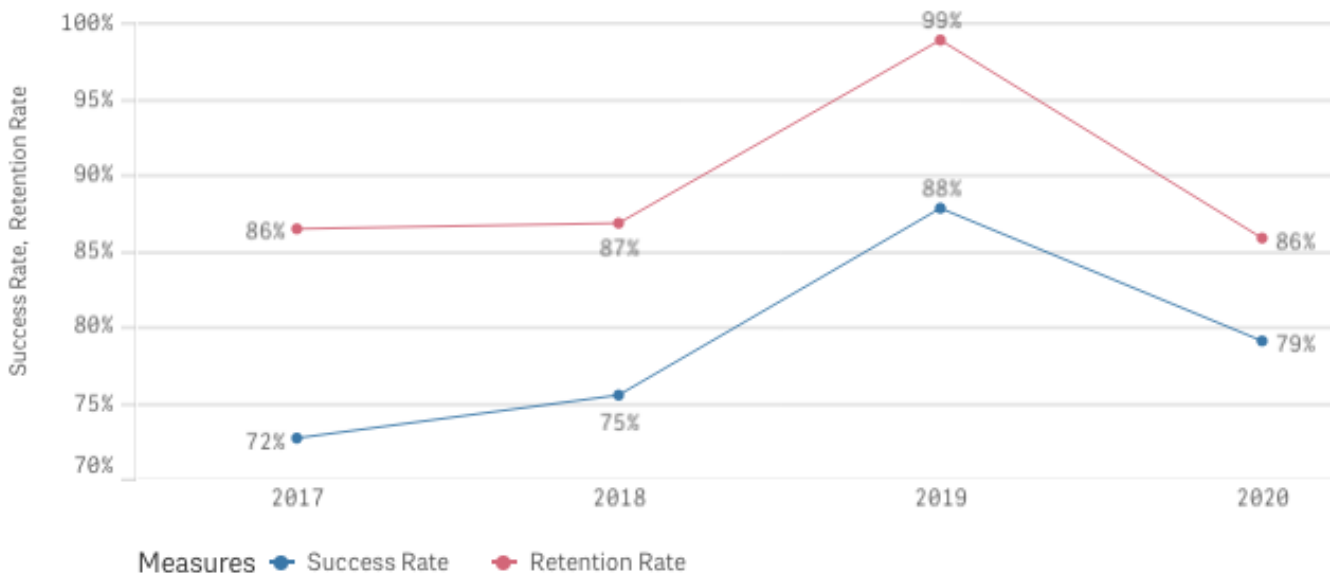
**Transfer Data:**

Of all Automotive Technology program graduates since the 2015-16 academic year, one student has transferred to a four-year institution. No program graduates have earned any higher (Bachelors or higher) level degree.

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

## STUDENT RETENTION

**Student Success and Retention**





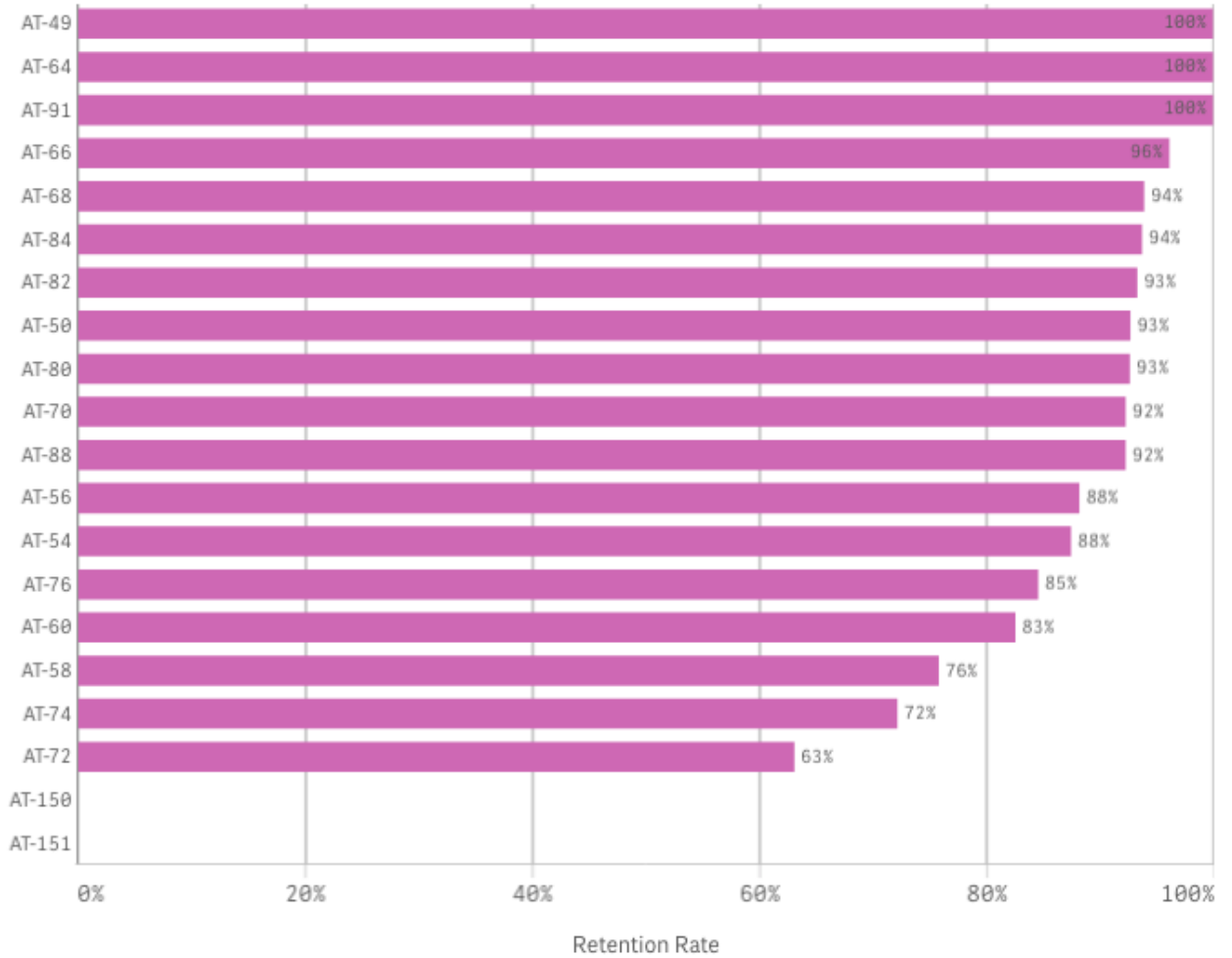
### Success and Retention by Academic Year

Academic Year	Census Enrollment	Success Rate	Retention Rate
Totals	398	77.9%	88.7%
2020	104	78.8%	85.6%
2019	81	87.7%	98.8%
2018	97	75.3%	86.6%
2017	116	72.4%	86.2%

### Retention Rates by Course

Course	Academic Year		Semester											
	2017		2018			2019			2020					
	FA	SP	FA	SU	SP	FA	SU	SP	FA	SP				
AT-49	-	-	-	-	100.0%	100.0%	-	-	100.0%	100.0%				
AT-50	-	-	92.9%	-	-	100.0%	-	-	90.0%	-				
AT-54	-	-	-	-	90.0%	-	-	-	-	83.3%				
AT-56	-	-	-	-	100.0%	-	-	-	-	77.8%				
AT-58	-	61.5%	-	-	-	-	-	90.9%	-	80.0%				
AT-60	-	66.7%	-	-	-	-	-	100.0%	-	75.0%				
AT-64	-	-	-	-	100.0%	-	-	-	-	-				
AT-66	92.9%	-	-	-	-	100.0%	-	-	-	-				
AT-68	94.4%	-	-	-	-	100.0%	-	-	-	66.7%				
AT-70	90.0%	88.9%	-	-	100.0%	100.0%	-	100.0%	-	75.0%				
AT-72	-	-	57.1%	-	-	-	-	-	80.0%	-				
AT-74	-	-	69.2%	-	-	-	-	-	80.0%	-				
AT-76	-	-	88.9%	-	-	-	-	-	75.0%	-				
AT-80	91.7%	-	-	-	100.0%	-	-	-	75.0%	94.4%				
AT-82	-	85.7%	-	-	-	100.0%	-	-	-	-				
AT-84	83.3%	-	100.0%	-	-	-	-	100.0%	-	-				
AT-88	-	92.3%	-	-	-	-	-	-	-	-				
AT-91	-	100.0%	-	-	100.0%	-	-	-	-	100.0%				
AT-151	-	-	-	-	-	-	-	-	-	-				
AT-150	-	-	-	-	-	-	-	-	-	-				

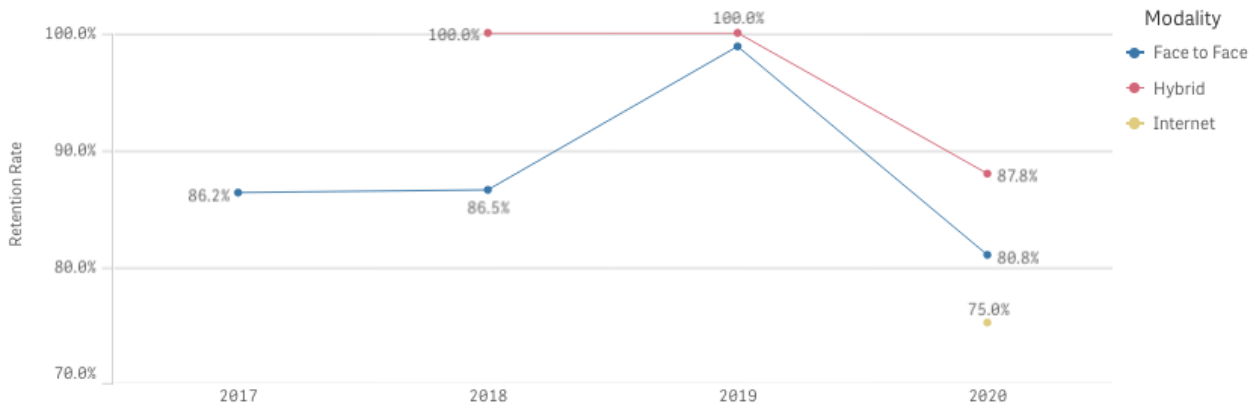
Retention by Course



Retention Rates by Modality and Academic Year

Modality	Academic Year			
	2017	2018	2019	2020
Face to Face	86.2%	86.5%	98.8%	80.8%
Internet	-	-	-	75.0%
Hybrid	-	100.0%	100.0%	87.8%

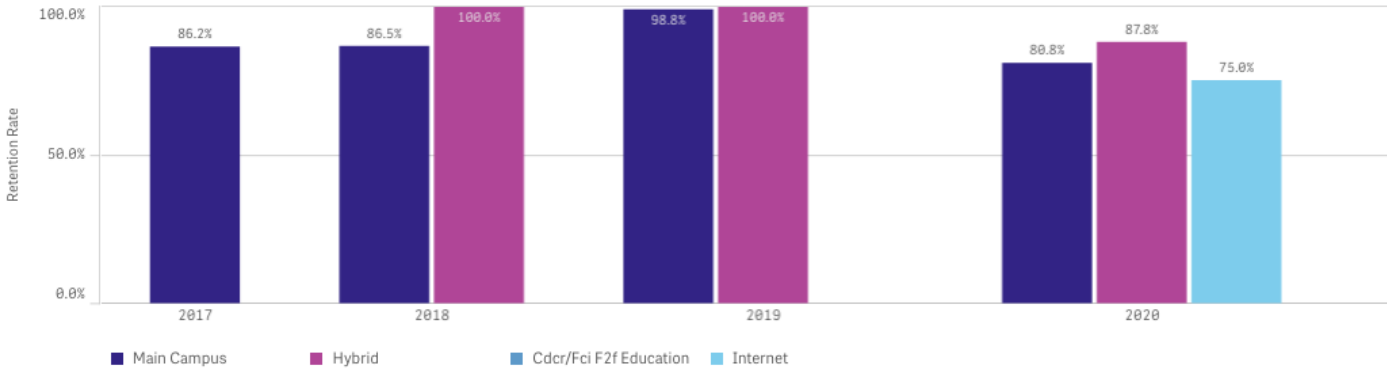
Retention Rates by Modality and Academic Year



Retention Rates by Location and Academic Year

Location	2017		2018			2019			2020	
	FA	SP	FA	SU	SP	FA	SU	SP	FA	SP
	Main Campus	91.7%	80.4%	77.4%	-	97.7%	100.0%	-	96.7%	77.8%
Hybrid	-	-	-	-	100.0%	100.0%	-	-	90.6%	85.7%
Cdcr/Fci F2f Education	-	-	-	-	-	-	-	-	-	-
Internet	-	-	-	-	-	-	-	-	-	75.0%

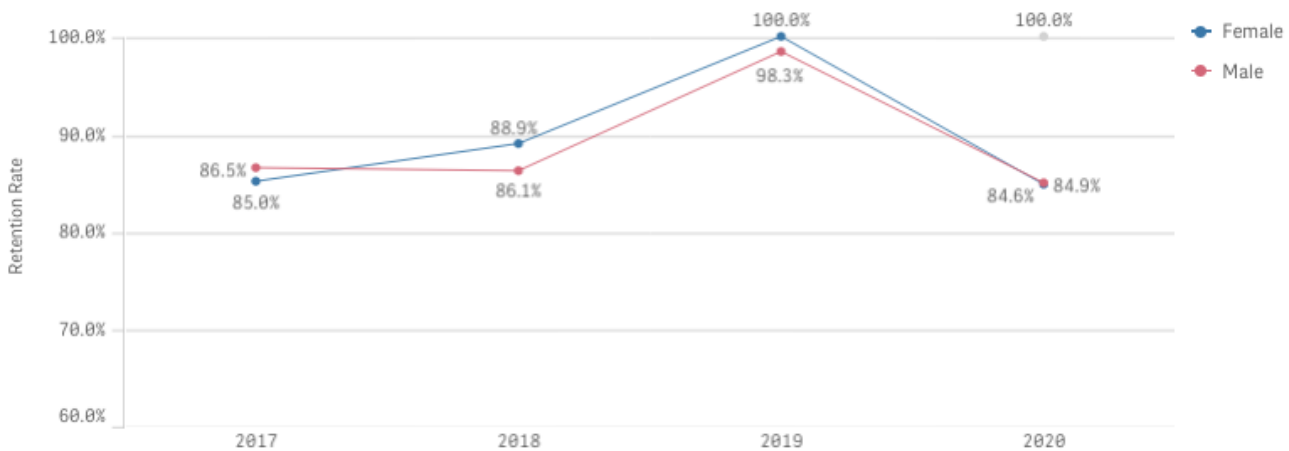
Retention Rates by Location and Academic Year



Retention Rates by Academic Year and Student Gender

Gender	2017		2018			2019			2020	
	FA	SP	FA	SU	SP	FA	SU	SP	FA	SP
	Female	100.0%	62.5%	75.0%	-	100.0%	100.0%	-	100.0%	66.7%
Male	89.6%	83.3%	77.8%	-	97.1%	100.0%	-	94.7%	86.4%	83.3%

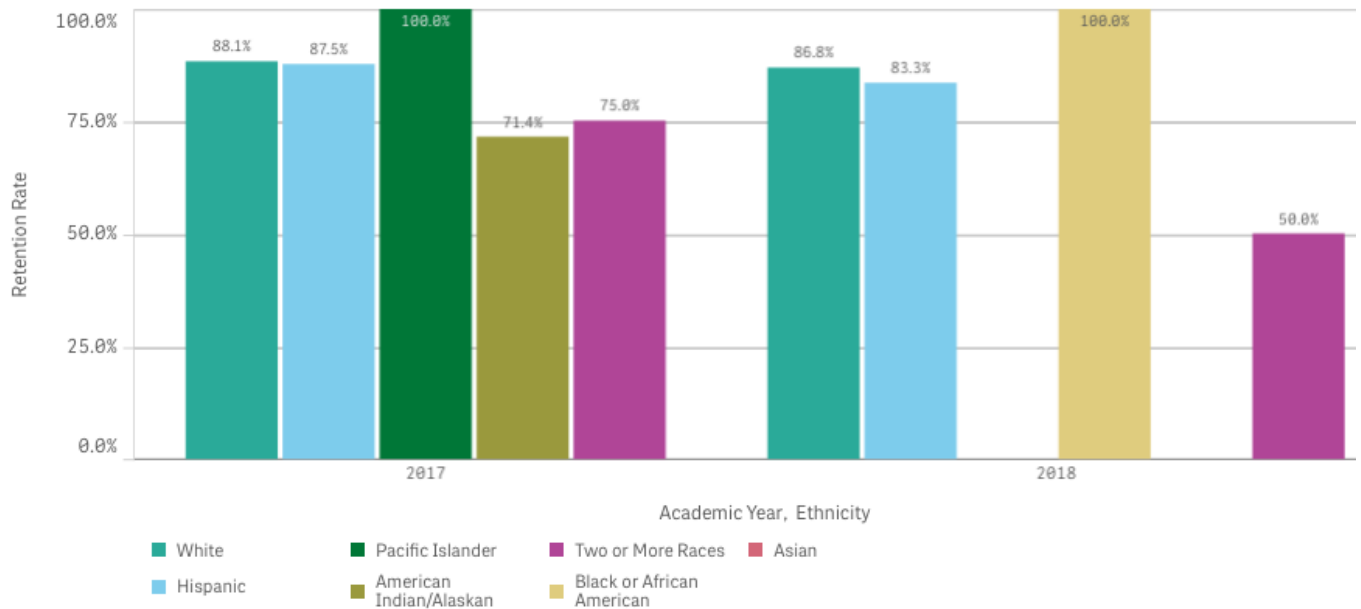
Retention Rates by Academic Year and Student Gender



Retention Rates by Ethnicity

Ethnicity	2017		2018			2019			2020	
	FA	SP	FA	SU	SP	FA	SU	SP	FA	SP
	Unknown/Non-Respondent	-	-	-	-	-	100.0%	-	0.0%	100.0%
White	90.2%	86.0%	78.4%	-	96.8%	100.0%	-	100.0%	96.3%	96.8%
Hispanic	100.0%	83.3%	70.0%	-	100.0%	100.0%	-	100.0%	33.3%	22.2%
Pacific Islander	100.0%	100.0%	-	-	-	-	-	-	-	-
American Indian/Alaskan	100.0%	0.0%	-	-	-	100.0%	-	100.0%	100.0%	100.0%
Black or African American	-	-	100.0%	-	100.0%	100.0%	-	100.0%	100.0%	-
Asian	-	-	-	-	-	-	-	-	-	-
Two or More Races	88.9%	33.3%	50.0%	-	-	-	-	-	100.0%	100.0%

Retention Rates by Ethnicity



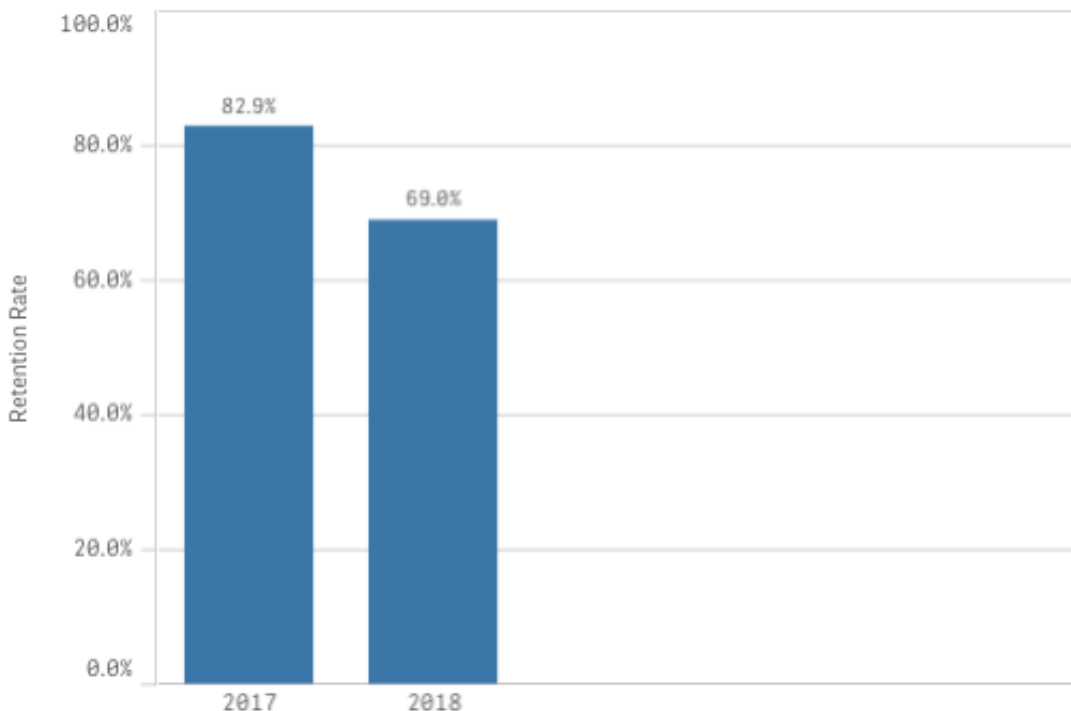
**CalWORKS: Special Program Retention Rate Data not included as N<10**

**Disabled: Special Program Retention Rate Data not included for Academic Year 2020-2021 as N<10**

### Retention by Academic Year (EOPS)

EOPS ▾	Academic Year ▾	
	2017	2018
EOPS Eligible	82.9%	69.0%

### Retention by Academic Year (EOPS)



**EOPS: Special Program Retention Data for AY 19-20 and 20-21 not included as N<10**

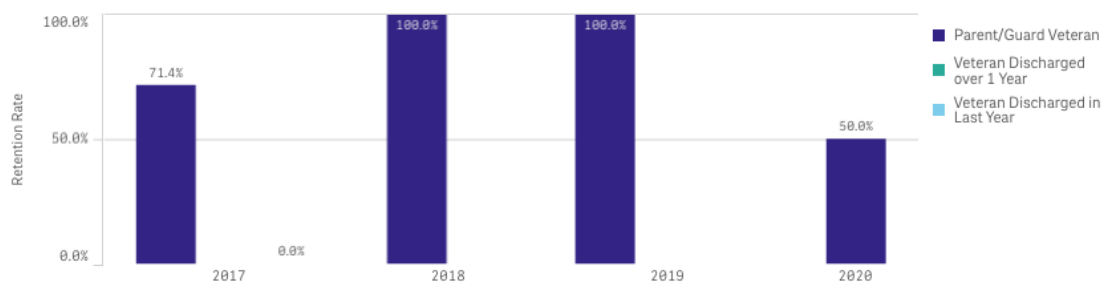
**CARE: Special Program Retention Data not included as N<10**

**Foster Youth: Special Program Retention Data not included as N<10**

Retention by Academic Year and Veteran/Military Dependent Status

Veteran Status, ... ▾	Academic Year ▾			
	2017	2018	2019	2020
Parent/Guard Veteran	71.4%	100.0%	100.0%	50.0%
Veteran Discharged over 1 Year	-	-	-	-
Veteran Discharged in Last Year	0.0%	-	-	-

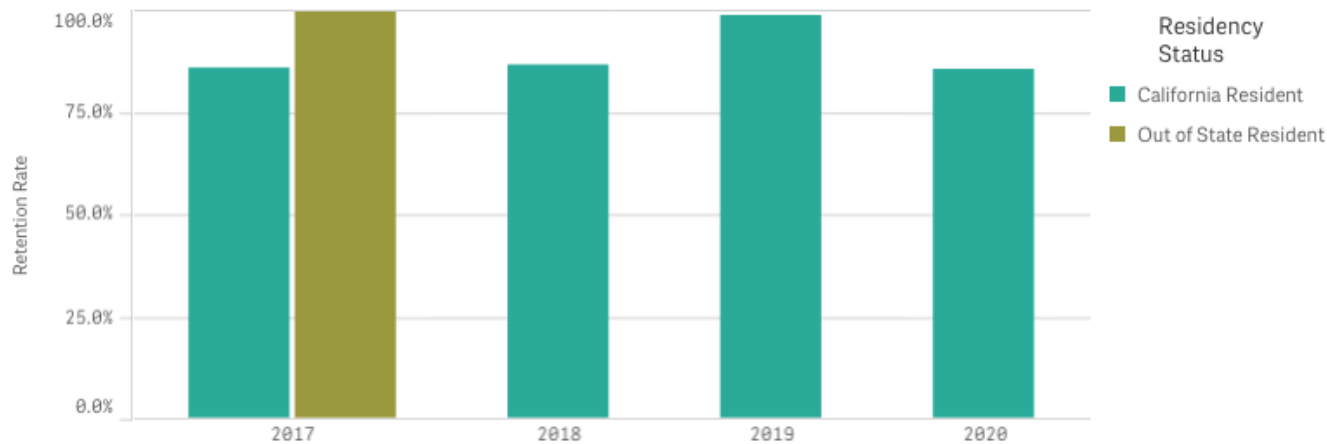
Retention by Academic Year and Veteran/Military Dependent Status



Retention by Academic Year and Residency Status

Residency Status	Academic Year			
	2017	2018	2019	2020
California Resident	85.8%	86.6%	98.8%	85.6%
Out of State Resident	100.0%	-	-	-

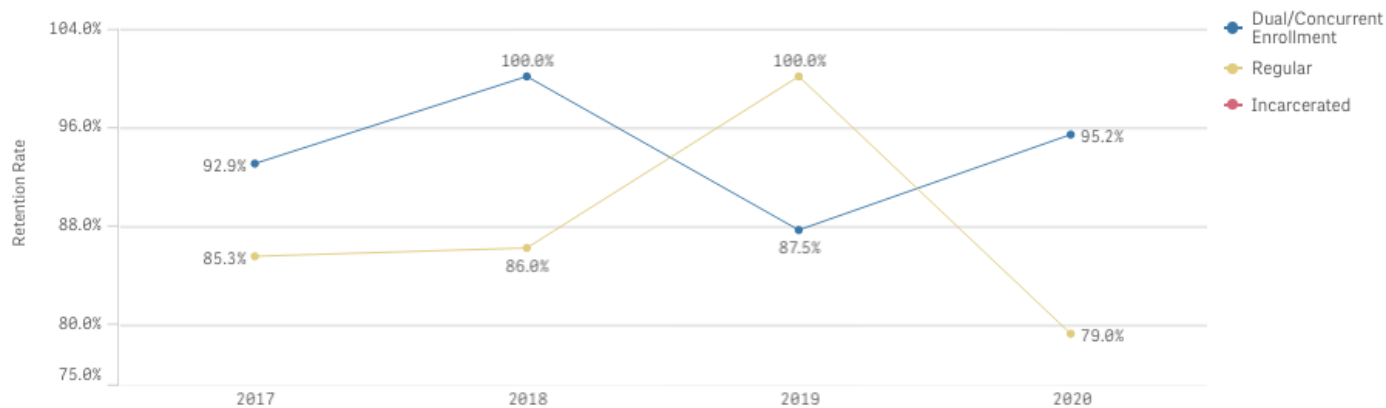
Retention by Academic Year and Residency Status



Retention Rates by Student Type

Student Type	Academic Year									
	2017		2018			2019			2020	
	FA	SP	FA	SU	SP	FA	SU	SP	FA	SP
Regular	91.1%	78.3%	76.5%	-	97.6%	100.0%	-	100.0%	80.0%	78.4%
Dual/Concurrent Enrollment	100.0%	90.0%	100.0%	-	100.0%	100.0%	-	75.0%	92.0%	100.0%
Incarcerated	-	-	-	-	-	-	-	-	-	-

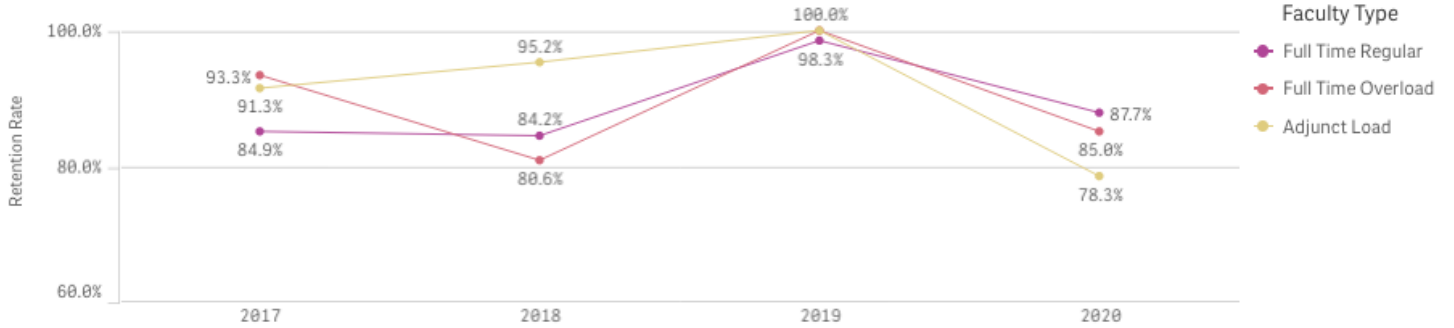
Retention Rates by Student Type



Retention Rates by Faculty Type

Faculty Type	Academic Year		Semester		2017		2018			2019			2020	
	FA	SP	FA	SU	SP	FA	SU	SP	FA	SP				
	Full Time Regular	92.0%	76.7%	71.8%	-	97.3%	100.0%	-	96.4%	87.0%	88.6%			
Full Time Overload	94.4%	91.7%	57.1%	-	95.5%	100.0%	-	100.0%	85.4%	83.3%				
Adjunct Load	90.0%	92.3%	92.9%	-	100.0%	100.0%	-	-	75.0%	78.9%				

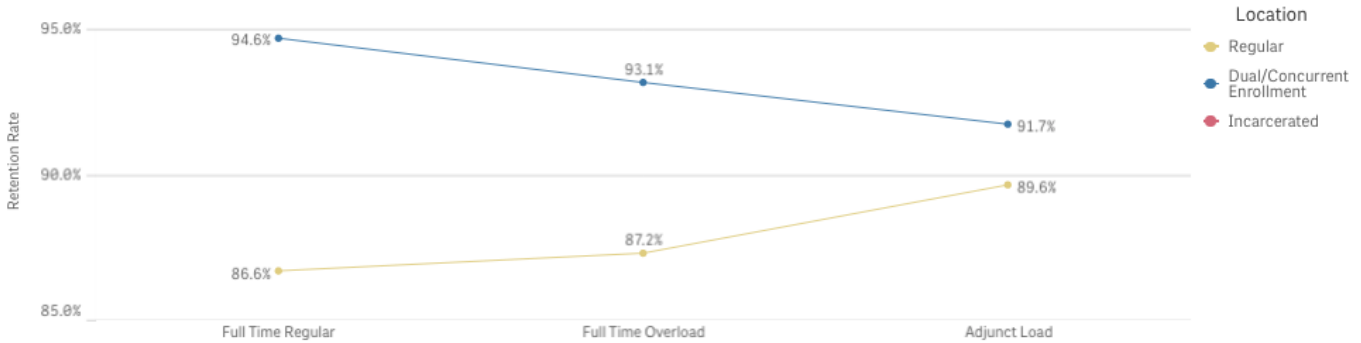
Retention Rates by Faculty Type and Academic Year



Retention Rates by Faculty Type and Student Type

Faculty Type	Location	Academic Year		Semester		2017		2018			2019			2020	
		FA	SP	FA	SU	SP	FA	SU	SP	FA	SP				
		<b>Full Time Regular</b>	<b>92.0%</b>	<b>76.7%</b>	<b>71.8%</b>	-	<b>97.3%</b>	<b>100.0%</b>	-	<b>96.4%</b>	<b>87.0%</b>	<b>88.6%</b>			
Regular	91.5%	73.7%	71.1%	-	97.2%	100.0%	-	100.0%	81.8%	80.0%					
Dual/Concurrent Enrollment	100.0%	100.0%	100.0%	-	100.0%	100.0%	-	75.0%	91.7%	100.0%					
<b>Full Time Overload</b>	<b>94.4%</b>	<b>91.7%</b>	<b>57.1%</b>	-	<b>95.5%</b>	<b>100.0%</b>	-	<b>100.0%</b>	<b>85.4%</b>	<b>83.3%</b>					
Regular	94.1%	90.9%	57.1%	-	95.5%	100.0%	-	100.0%	78.3%	83.3%					
Dual/Concurrent Enrollment	100.0%	100.0%	-	-	-	100.0%	-	100.0%	92.0%	-					
Incarcerated	-	-	-	-	-	-	-	-	-	-					
<b>Adjunct Load</b>	<b>90.0%</b>	<b>92.3%</b>	<b>92.9%</b>	-	<b>100.0%</b>	<b>100.0%</b>	-	-	<b>75.0%</b>	<b>78.9%</b>					
Regular	88.9%	100.0%	92.3%	-	100.0%	100.0%	-	-	66.7%	76.5%					
Dual/Concurrent Enrollment	100.0%	80.0%	100.0%	-	100.0%	100.0%	-	-	100.0%	100.0%					

Retention Rates by Faculty Type



## **2. Analyze program effectiveness based on available quantitative data and qualitative experiences.**

Student success and retention remain at good levels. Attention needs to be given to enrollment numbers. More efforts are needed to increase enrollment through marketing and advertising career opportunities in the automotive field. The Subaru U, Ford ACE and smog program need to be highlighted. Continued work with the high school and local charter schools will help.

### **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.

#4 Update local certificates to better align with updated two year advising plan.

#5 Continue to work with the local high school and charter schools to recruit students to boost enrollment.

#6 Increase marketing and advertising for the auto program and all CTE programs.

### **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.

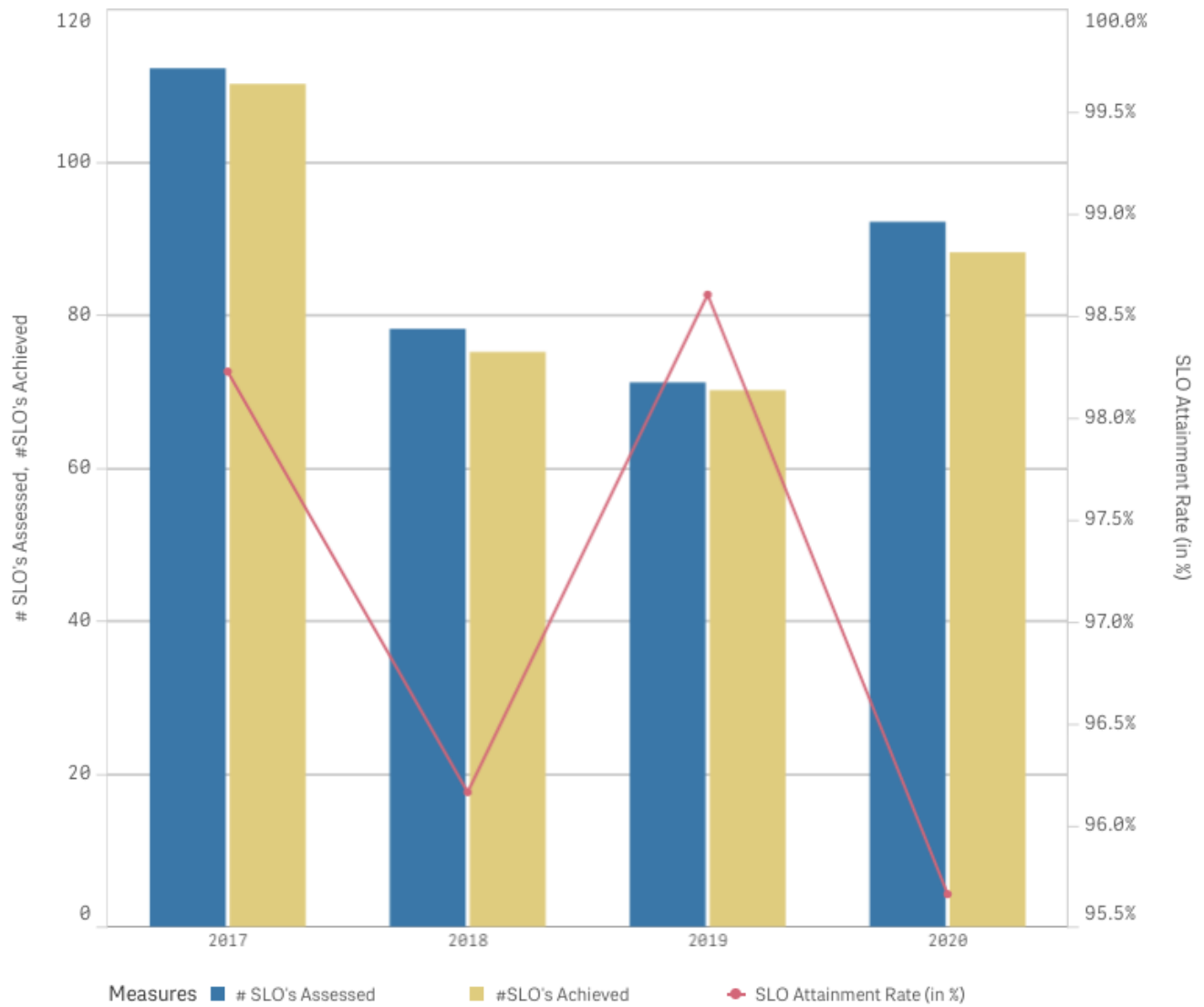
#### Description/Evaluation:

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

## **STUDENT LEARNING OUTCOMES (SLOs)**



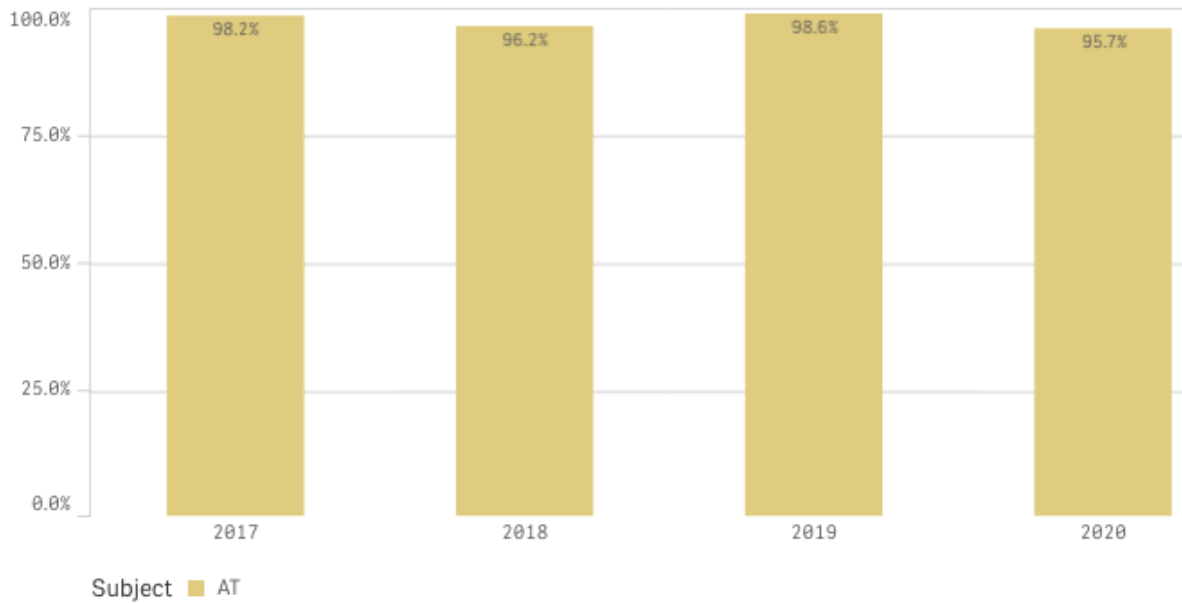
Number of SLO's Assessed and Achieved, with SLO Attainment Rate (%)



SLOs by Academic Year and Subject Area

Academic Year ▾		Measures		
Subject ▾		# Assessed	# Achieved	Average% Achieved
<b>Totals</b>		<b>353</b>	<b>343</b>	<b>97.2%</b>
<b>2017</b>		<b>112</b>	<b>110</b>	<b>98.2%</b>
	AT	112	110	98.2%
<b>2018</b>		<b>78</b>	<b>75</b>	<b>96.2%</b>
	AT	78	75	96.2%
<b>2019</b>		<b>71</b>	<b>70</b>	<b>98.6%</b>
	AT	71	70	98.6%
<b>2020</b>		<b>92</b>	<b>88</b>	<b>95.7%</b>
	AT	92	88	95.7%

SLOs by Subject Area and Academic Year



SLO Attainment Rate by Course and Academic Year

Course	Academic Year		Measures		Course Totals																			
	2017			2018			2019			2020			2017			2018			2019			2020		
	# Assessed	Achieved	% Attained	# Assessed	Achieved	% Attained	# Assessed	Achieved	% Attained	# Assessed	Achieved	% Attained	# Assessed	Achieved	% Attained	# Assessed	Achieved	% Attained	# Assessed	Achieved	% Attained	# Assessed	Achieved	% Attained
AT-49	2	2	100%	-	-	-	1	1	100%	-	-	-	1	1	100%	-	-	-	1	1	100%	-	-	-
AT-50	38	34	89%	-	-	-	0	0	-	11	11	100%	27	23	85%	-	-	-	-	-	-	-	-	-
AT-54	15	15	100%	-	-	-	10	10	100%	-	-	-	5	5	100%	-	-	-	-	-	-	-	-	-
AT-56	15	15	100%	-	-	-	8	8	100%	-	-	-	7	7	100%	-	-	-	-	-	-	-	-	-
AT-58	12	12	100%	8	8	100%	-	-	-	0	0	-	4	4	100%	-	-	-	-	-	-	-	-	-
AT-60	9	9	100%	6	6	100%	-	-	-	0	0	-	3	3	100%	-	-	-	-	-	-	-	-	-
AT-64	7	7	100%	-	-	-	7	7	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AT-66	26	24	92%	14	12	86%	-	-	-	12	12	100%	-	-	-	-	-	-	-	-	-	-	-	-
AT-68	32	32	100%	17	17	100%	-	-	-	13	13	100%	2	2	100%	-	-	-	-	-	-	-	-	-
AT-70	52	52	100%	32	32	100%	7	7	100%	7	7	100%	6	6	100%	-	-	-	-	-	-	-	-	-
AT-72	12	11	92%	-	-	-	8	7	88%	-	-	-	4	4	100%	-	-	-	-	-	-	-	-	-
AT-74	13	12	92%	-	-	-	9	8	89%	-	-	-	4	4	100%	-	-	-	-	-	-	-	-	-
AT-76	18	18	100%	-	-	-	12	12	100%	-	-	-	6	6	100%	-	-	-	-	-	-	-	-	-
AT-80	36	36	100%	11	11	100%	7	7	100%	-	-	-	18	18	100%	-	-	-	-	-	-	-	-	-
AT-82	14	14	100%	6	6	100%	-	-	-	8	8	100%	-	-	-	-	-	-	-	-	-	-	-	-
AT-84	9	8	89%	5	5	100%	4	3	75%	0	0	-	-	-	-	-	-	-	-	-	-	-	-	
AT-88	13	13	100%	13	13	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AT-90	5	5	100%	-	-	-	5	5	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AT-91	5	5	100%	-	-	-	-	-	-	-	-	-	5	5	100%	-	-	-	-	-	-	-	-	-
AT-150	20	19	95%	-	-	-	0	0	-	20	19	95%	-	-	-	-	-	-	-	-	-	-	-	-
AT-151	0	0	-	-	-	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SLOs by Modality, Academic Year and Semester

Modality	Measures	2017		2018			2019			2020	
		2017FA	2018SP	2018FA	2018SU	2019SP	2019FA	2019SU	2020SP	2020FA	2021SP
		Academic Year	Term								
Face-to-Face - % Attained		96.88%	100.00%	90.91%	-	100.00%	100.00%	95.00%	-	100.00%	-
Face-to-Face - Assessed		64	48	33	0	44	51	20	0	17	-
Face-to-Face - Achieved		62	48	30	0	44	51	19	0	17	-
Face to Face - % Attained		-	-	-	-	-	-	-	-	-	100.00%
Face to Face - Assessed		-	-	-	-	-	-	-	-	-	11
Face to Face - Achieved		-	-	-	-	-	-	-	-	-	11
Hybrid - % Attained		-	-	-	-	100.00%	-	-	-	85.19%	100.00%
Hybrid - Assessed		-	-	-	-	1	-	-	-	27	34
Hybrid - Achieved		-	-	-	-	1	-	-	-	23	34
Internet - % Attained		-	-	-	-	-	-	-	-	-	100.00%
Internet - Assessed		-	-	-	-	-	-	-	-	-	3
Internet - Achieved		-	-	-	-	-	-	-	-	-	3

SLOs by Modality, Academic Year and Semester



2. Provide an analysis of findings of the assessments completed and recommendations being made in individual assessments. Consider the impact or influence of the assessment results at the program level. Consider how SLO results may be leveraged to support equipment, facility, staffing, or other budget and planning need and include the justification in your analysis.

There has been a great deal of attention on learning outcomes over the last two years for all courses and programs. The campus-wide SLO mapping project has put a sharp focus on quality course and program learning outcomes. This will not only improve the student experience and improved learning outcomes but will also better meet ACCJC accreditation requirements. There were attempts in May 2021 to assess program learning outcomes through a graduate survey. These were emailed to graduating students. Due to concerns of a low response rate, students were requested to complete paper copies of the ISLO's at graduation practice. There were no student responses from the emailed surveys and seventy-seven students responded to the ISLO surveys. The number of automotive students surveyed here were too small to be statistically relevant. Assessment of all learning outcomes continues to be a focus for the campus

A "roll-up" method was also implemented which involved. The Office of Institutional Effectiveness extracting PSLO and ISLO data from the previously mentioned mapping process. The results for the auto program were listed previously in this report. It is noted there are areas of improvement for this method of evaluation. They are listed below:

- Map formats: consideration of whether it would be beneficial to have maps in Excel format (Accreditation Steering Committee 2-17-22)
- Warehousing of maps to insure most current version being used (IE 2/23/21 Minutes)
- Curriculum approval of maps
- Including maps on Curriculum Review form included in IPRs
- SLO Reporting – Assess usefulness of beginning of term “SLO Plan”

**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.

#7 Assess previous course SLO data before every semester to close the loop on assessment and improve student learning.

#8 Work with the IE office, accreditation tri-chairs, and Senate to better assess PSLO's.

**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).

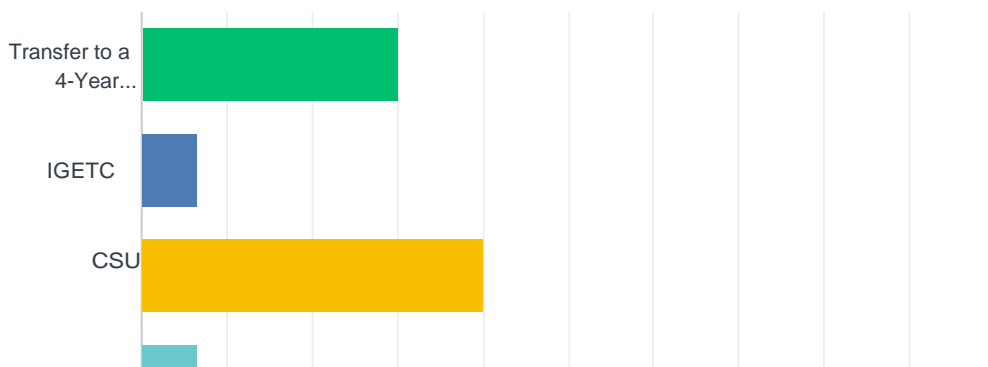
An anonymous questionnaire is considered to be the most effective format. This will encourage the students to be frank in their responses. The student evaluation will be scheduled and administered by the Office of Instruction during October/November and February/March of each instructional review process. 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 evaluations

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

Answered: 30 Skipped: 0



# Automotive Technology Spring 2022 Instructional Program Review

Certification

UNR  
Certification

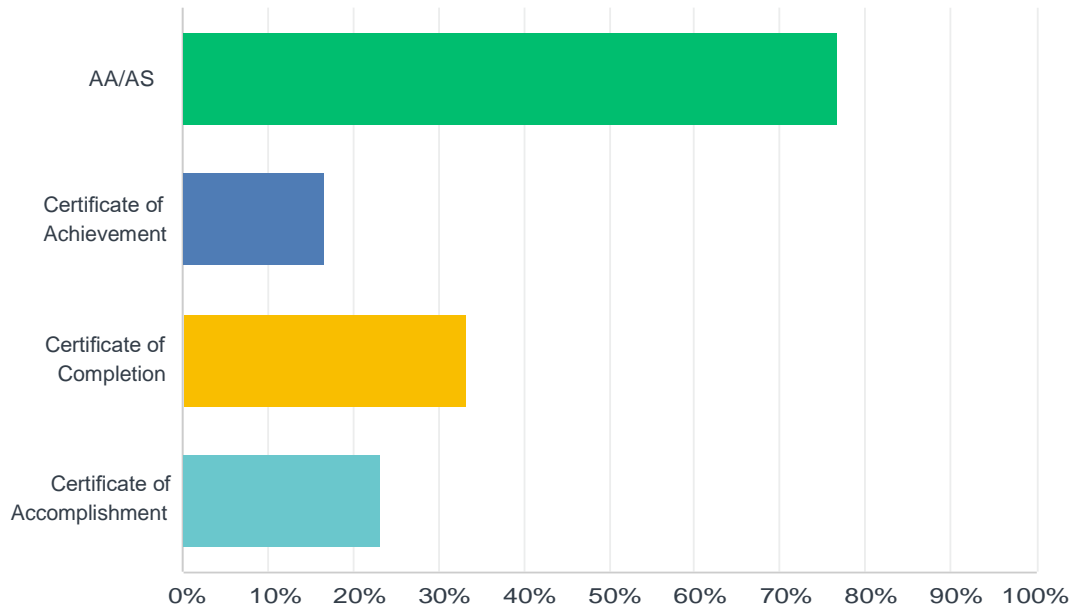
Transfer to  
another...

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

ANSWER CHOICES	RESPONSES
Transfer to a 4-Year Institution	30.00% 9
IGETC	6.67% 2
CSU Certification	40.00% 12
UNR Certification	6.67% 2
Transfer to another community College 8	26.67%
Total Respondents: 30	

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

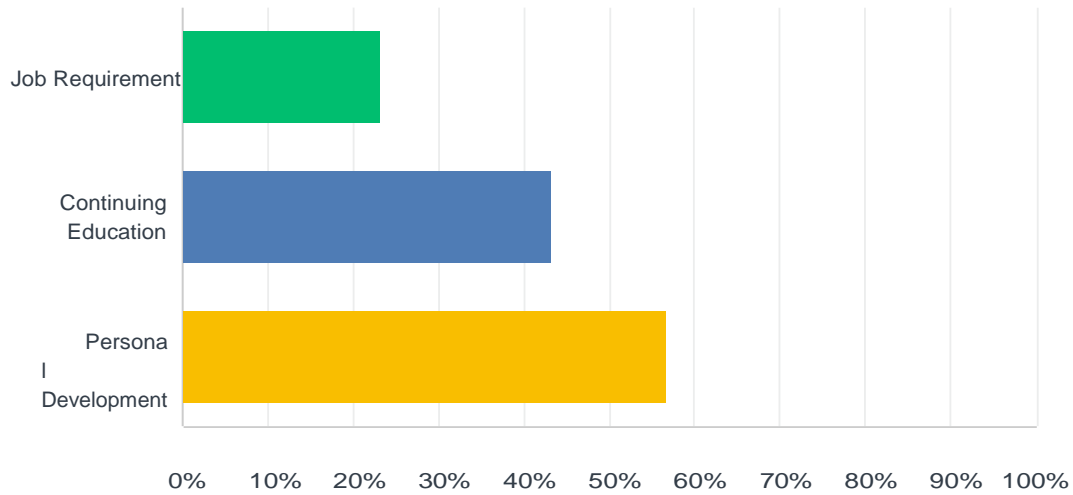
Answered: 30 Skipped: 0



ANSWER CHOICES	RESPONSES	
AA/AS	76.67%	23
Certificate of Achievement	16.67%	5
Certificate of Completion	33.33%	10
Certificate of Accomplishment	23.33%	7
Total Respondents: 30		

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

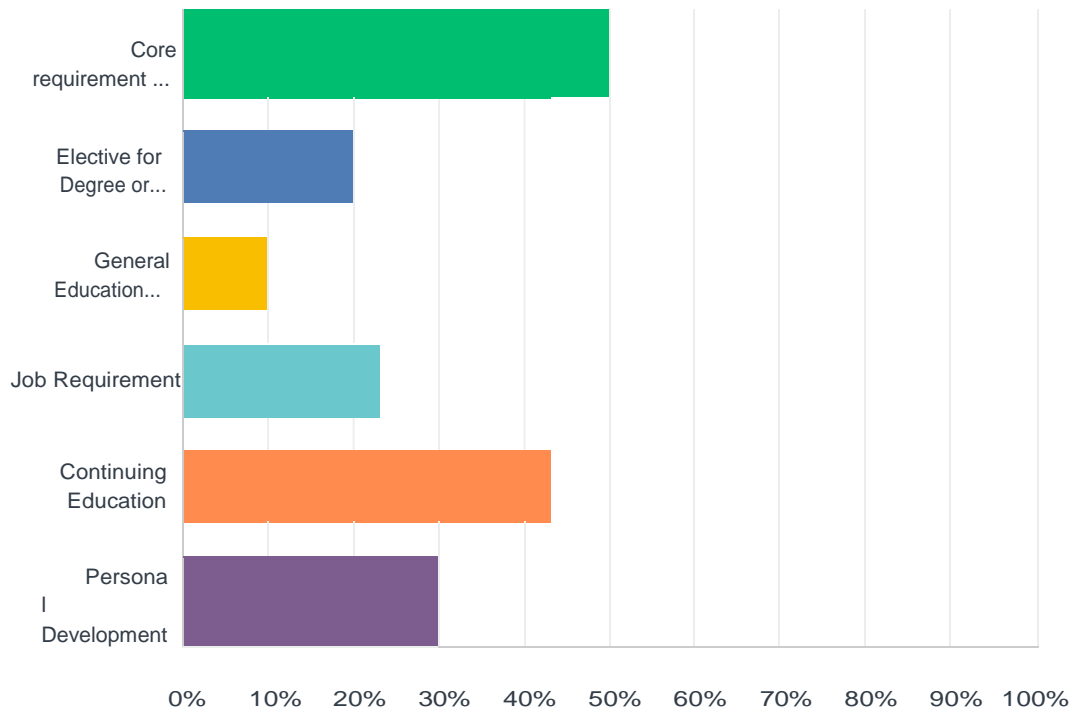
Answered: 30 Skipped: 0



ANSWER CHOICES	RESPONSES
Job Requirement	23.33% 7
Continuing Education	43.33% 13
Personal Development	56.67% 17
Total Respondents: 30	

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

Answered: 30 Skipped: 0

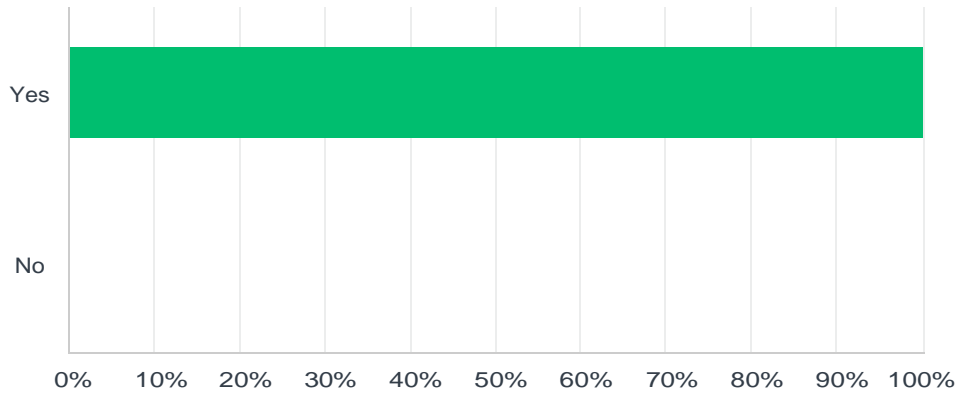


ANSWER CHOICES	RESPONSES	
Core requirement for degree or certificate	43.33%	13
Elective for Degree or Certificate	20.00%	6
General Education course for degree or transfer	10.00%	3
Job Requirement	23.33%	7
Continuing Education	43.33%	13
Personal Development	30.00%	9
Total Respondents: 30		



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

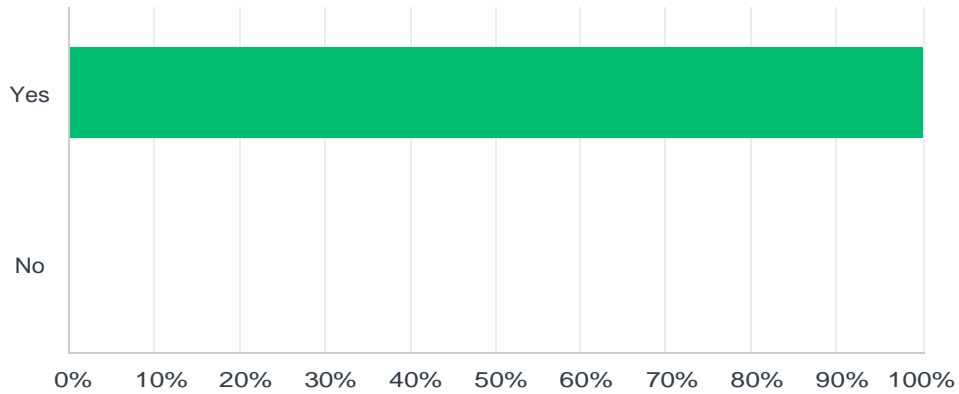
Answered: 30 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	100.00%	30
No	0.00%	0
<b>TOTAL</b>		<b>30</b>

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

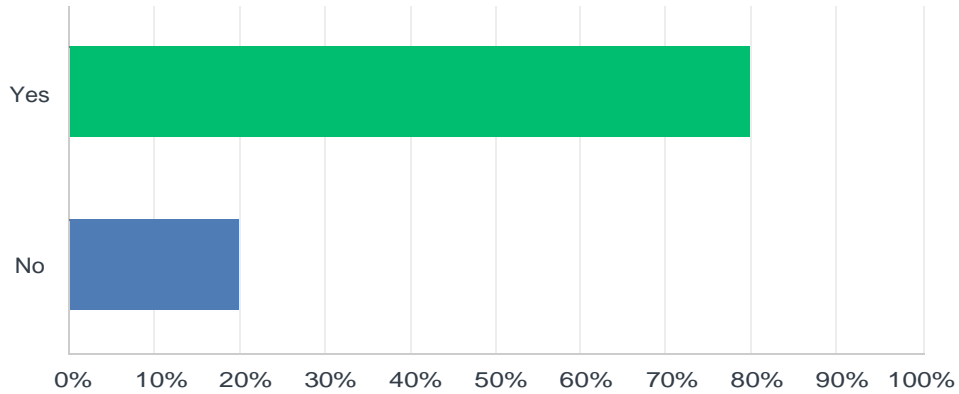
Answered: 30 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	100.00%	30
No	0.00%	0
TOTAL		30

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

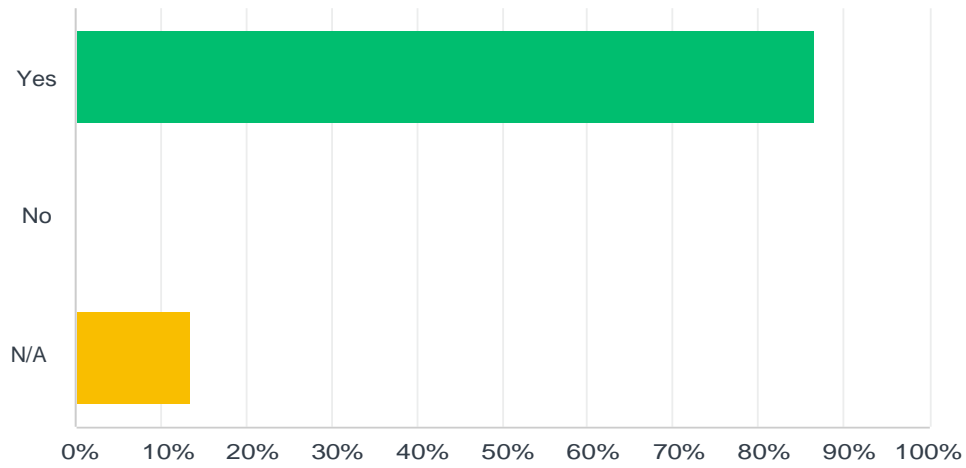
Answered: 30 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	80.00%	24
No	20.00%	6
TOTAL		30

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

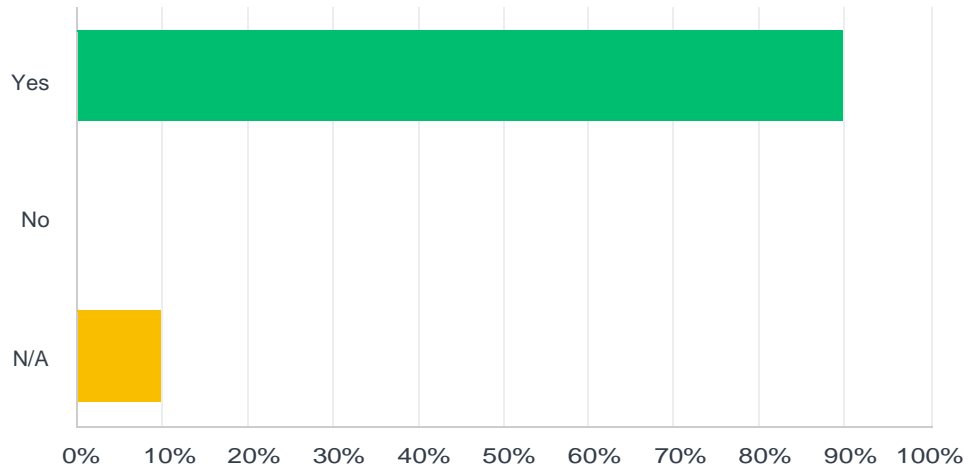
Answered: 30 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	86.67%	26
No	0.00%	0
N/A	13.33%	4
<b>TOTAL</b>		<b>30</b>

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

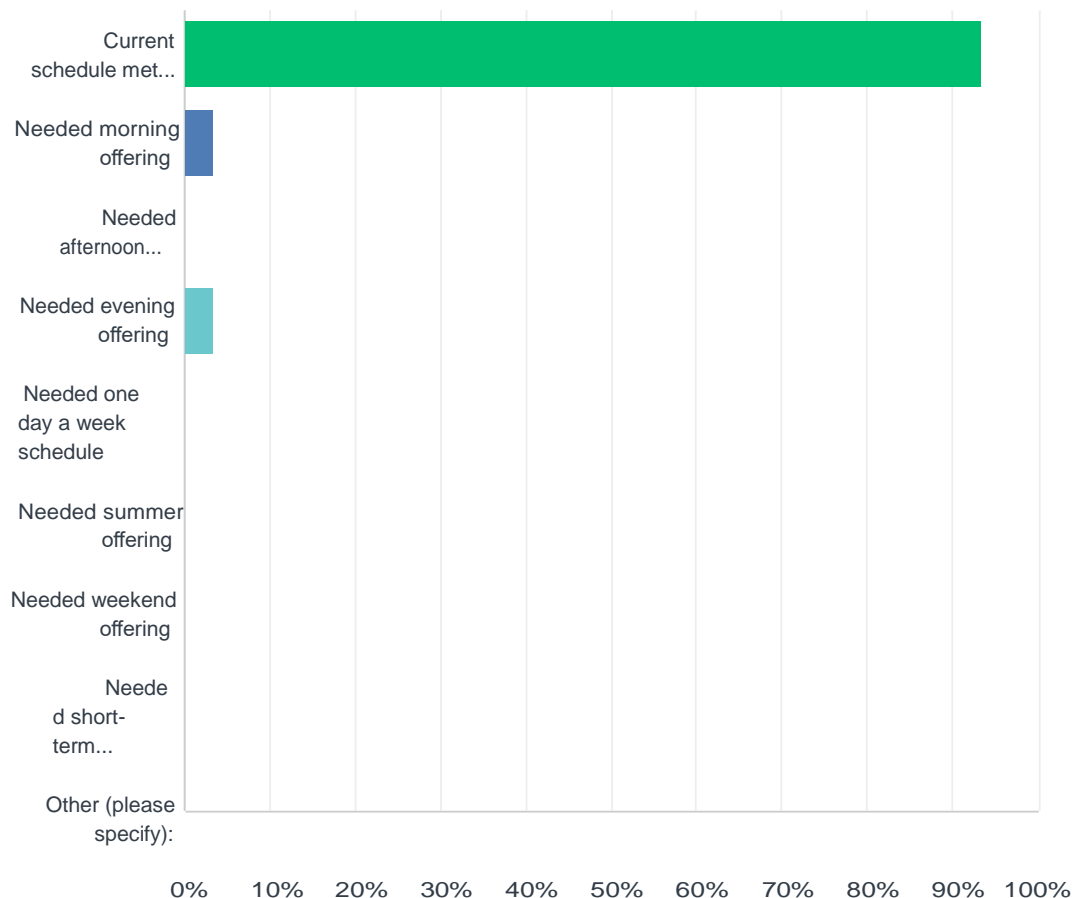
Answered: 30 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	90.00%	27
No	0.00%	0
N/A	10.00%	3
<b>TOTAL</b>		<b>30</b>

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

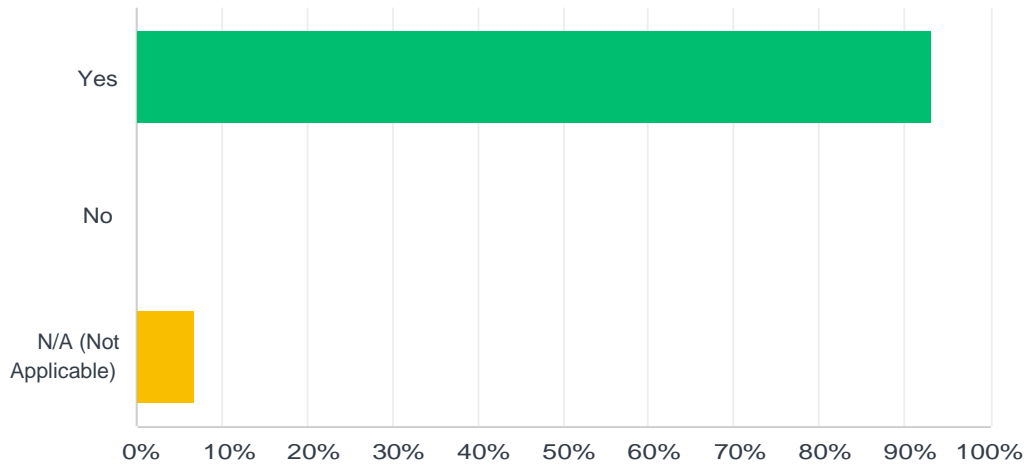
Answered: 30 Skipped: 0



ANSWER CHOICES	RESPONSES	
Current schedule met my needs	93.33%	28
Needed morning offering	3.33%	1
Needed afternoon offering	0.00%	0
Needed evening offering	3.33%	1
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
<b>TOTAL</b>		<b>30</b>

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

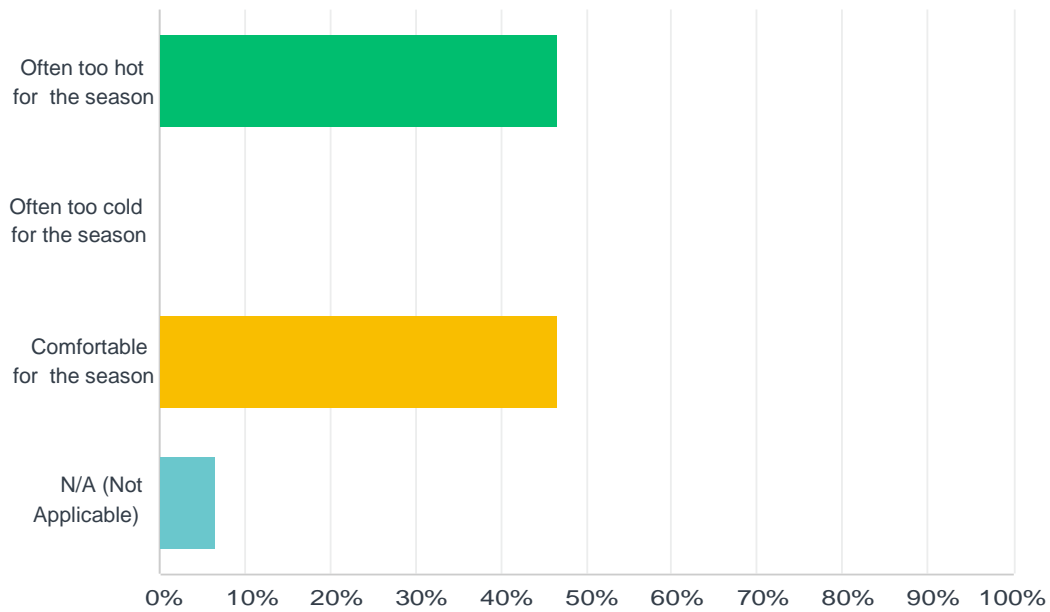
Answered: 29 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes	93.10%	27
No	0.00%	0
N/A (Not Applicable)	6.90%	2
<b>TOTAL</b>		<b>29</b>

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: 30 Skipped: 0

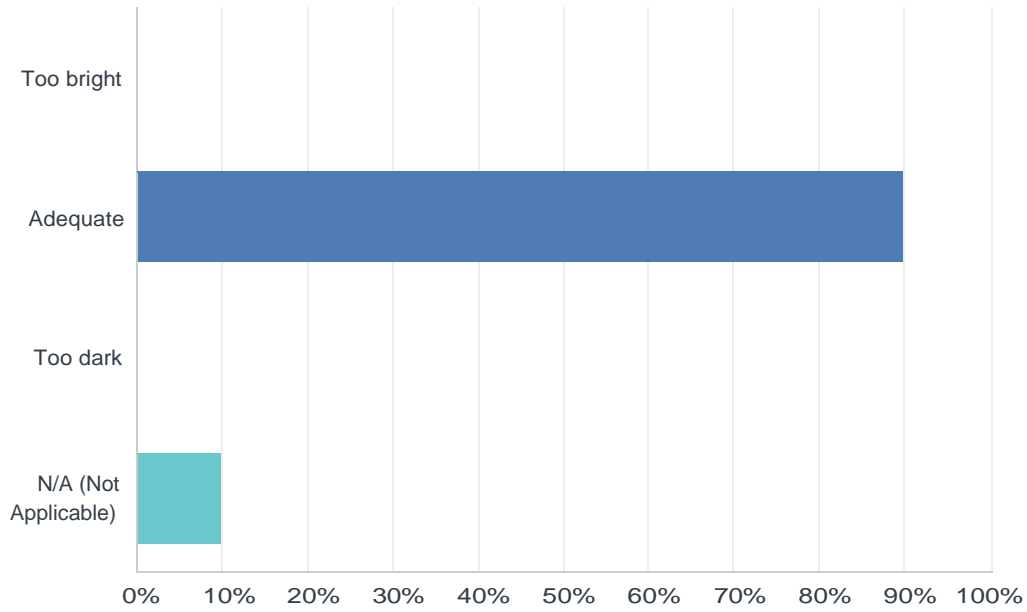


ANSWER CHOICES	RESPONSES	
Often too hot for the season	46.67%	14
Often too cold for the season	0.00%	0
Comfortable for the season	46.67%	14
N/A (Not Applicable)	6.67%	2
<b>TOTAL</b>		<b>30</b>



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

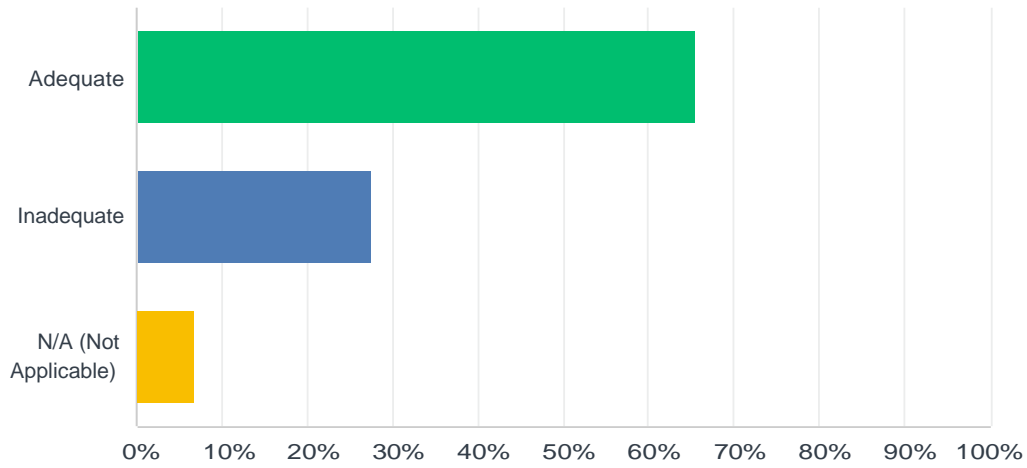
Answered: 30 Skipped: 0



ANSWER CHOICES	RESPONSES	
Too bright	0.00%	0
Adequate	90.00%	27
Too dark	0.00%	0
N/A (Not Applicable)	10.00%	3
<b>TOTAL</b>		<b>30</b>

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

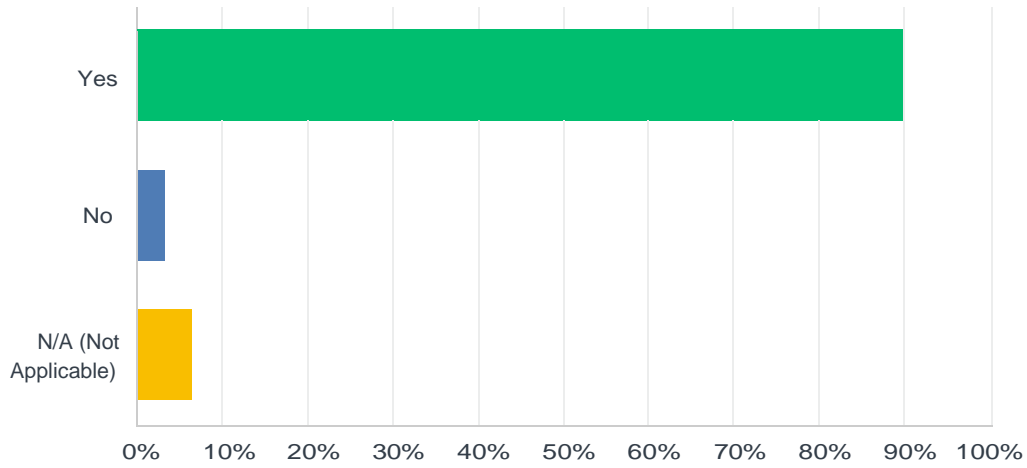
Answered: 29 Skipped: 1



ANSWER CHOICES	RESPONSES	
Adequate	65.52%	19
Inadequate	27.59%	8
N/A (Not Applicable)	6.90%	2
<b>TOTAL</b>		<b>29</b>

**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: 30 Skipped: 0



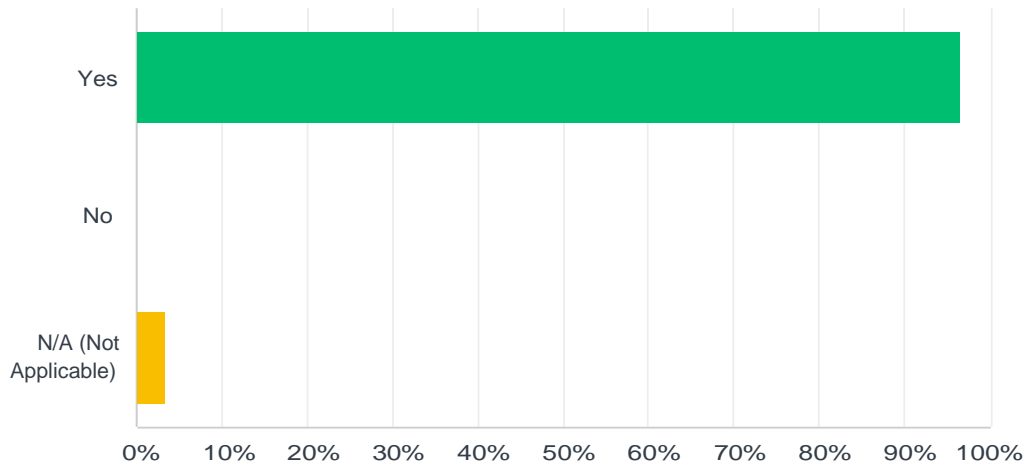
ANSWER CHOICES	RESPONSES	
Yes	90.00%	27
No	3.33%	1
N/A (Not Applicable)	6.67%	2
<b>TOTAL</b>		<b>30</b>

**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: 17 Skipped: 13

### Q20 Did the course/program provide the necessary equipment?

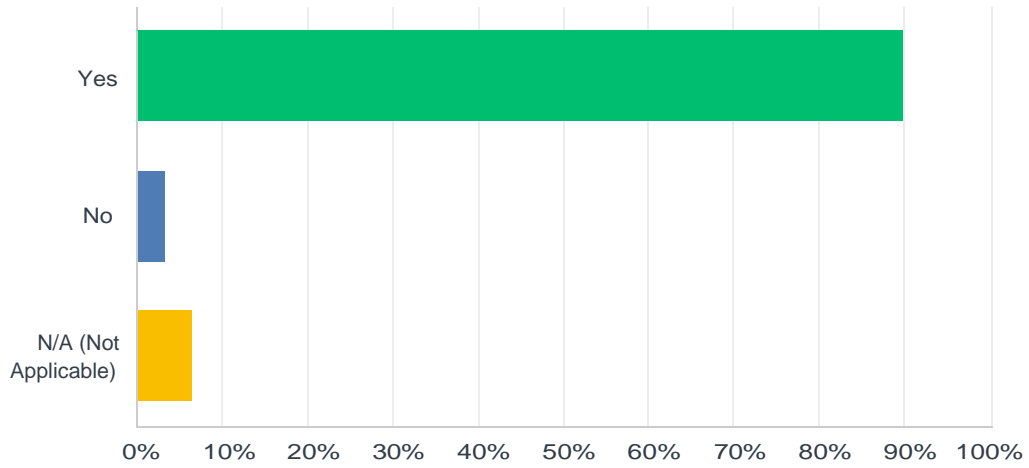
Answered: 30 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	96.67%	29
No	0.00%	0
N/A (Not Applicable)	3.33%	1
<b>TOTAL</b>		<b>30</b>

### Q21 Is enough time on equipment allowed for each student?

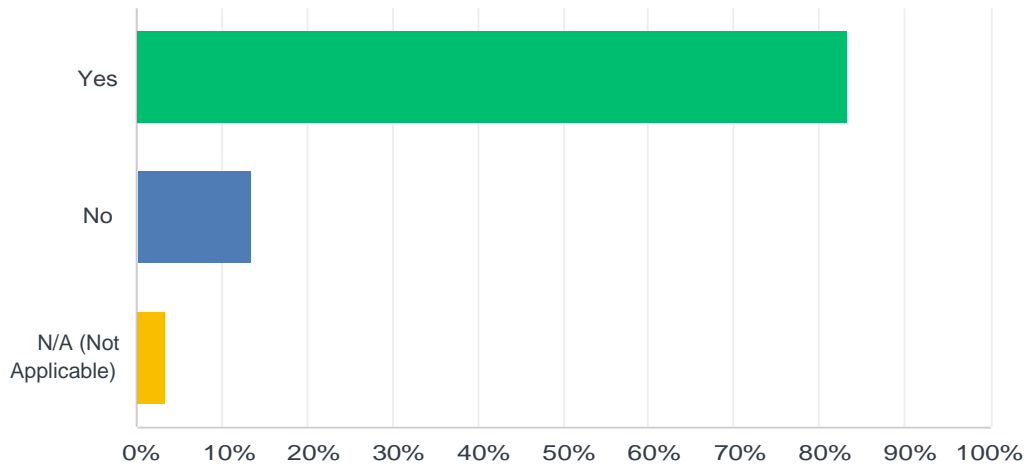
Answered: 30 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	90.00%	27
No	3.33%	1
N/A (Not Applicable)	6.67%	2
<b>TOTAL</b>		<b>30</b>

### Q22 Is equipment current?

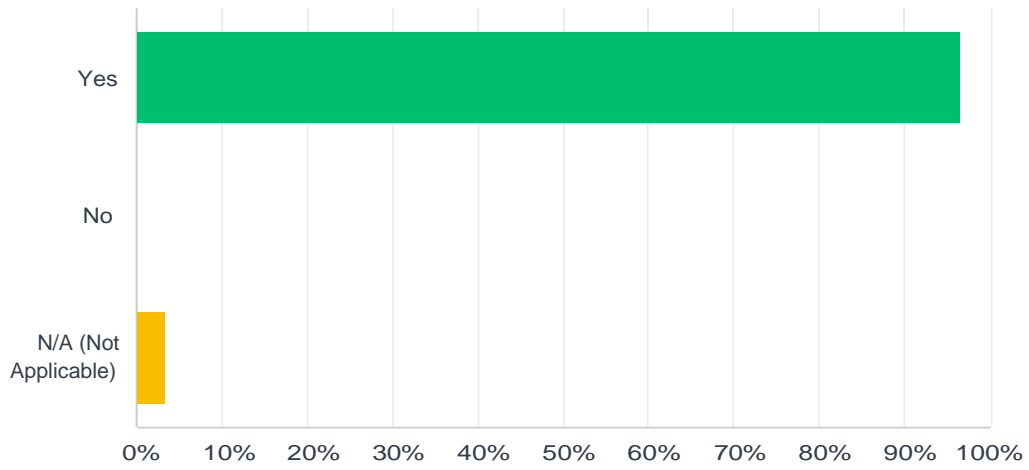
Answered: 30 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	83.33%	25
No	13.33%	4
N/A (Not Applicable)	3.33%	1
<b>TOTAL</b>		<b>30</b>

### Q23 Is equipment generally in good operation condition?

Answered: 30 Skipped: 0



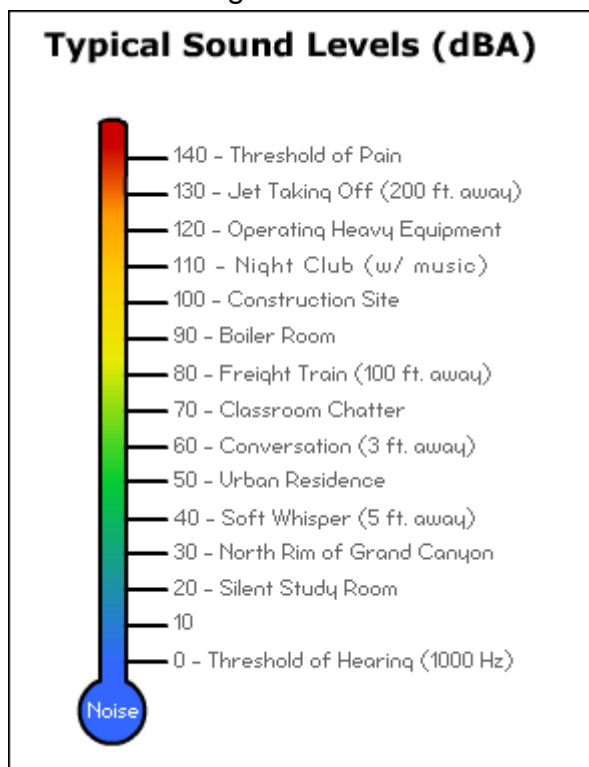
ANSWER CHOICES	RESPONSES	
Yes	96.67%	29
No	0.00%	0
N/A	(NotApplicable)3.33%	1
<b>TOTAL</b>		<b>30</b>



Students were overall satisfied with the automotive program based on the survey above. The items that need to be addressed is 15% believe the equipment needs to be updated. The equipment used in the courses offered during the survey are fairly current. There are tools and equipment in courses not offered in this period that need updating and purchasing. This is required to keep pace with industry needs. The desks in the classroom continue to be an issue for students, as nearly 30% indicated this as a problem. This has been noted as well in the last several program reviews.

The students indicated by a margin of 46.7% that it is often too hot for the season in the auto shop and classroom. During late spring, summer, and early fall courses, it often reaches ninety degrees or higher. This often times approaches the CAL-OSHA threshold of ninety-five degrees for high temperature measures. This is also not conducive to learning.

Although not mentioned in the survey, the heating system in the shop is quite noisy. During operation the heaters average eighty-five decibels. The OSHA chart below shows this being about the same volume of a freight train from one hundred feet away. This is also not a proper learning environment.



### 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.

#9 Update tools and equipment as listed in section IV in the program review when finances allow it.

#10 Provide tables and chairs for the classroom.

#11 Provide A/C for the tool room, classroom, and instructor's office and some form of cooling for the shop area.

#12 Inspect and recommend updates to the heating system for quieter operation.

### III. Curriculum

#### A. Degrees and/or

#### Certificates

#### Description/Evaluation:

- List degree and/or certificates offered in the program. Review/revise two-year plan(s). Update scheduling sequence listed on course outline where needed (course outline and/or program revisions need Curriculum Committee approval) attach the approved two-year plan for each degree and certificate (see Attachment D, Degrees/Certificates by Program). Degree and certificate student learning outcomes, if different from program student learning outcomes, should be included in this section.

The Automotive Technology student can earn a variety of certificates and an Associate in Science Degree in Automotive Technology. The degree and certificates, including the two-year Advising plan, are listed below.

## AUTOMOTIVE TECHNOLOGY

### Associate in Science Degree

### Automotive Technology

**Required Core Courses:** 39 units

**Total Units:** 60 units

Course Number	Course Title	Fall	Spring
AT 50	Car Care Basics	3	
AT 54	Brakes	3	
AT 56	Steering and Suspension		3
AT 58	Automotive Heating and Air Conditioning		3(even)
AT 60	Shop Management and Service Writer		2 (odd)
AT 66	Manual Drive Train	4(odd)	
AT 68	Automatic Transmissions		3
AT 70	General Automotive Lab	2	2
AT 72	Engine Repair Short Block and Machining	4(even )	
AT 74	Engine Repair and Machining-Cylinder Heads	3(even )	
AT 80	Basic Electrical		3
AT 82	Engine Performance I	3	
AT 84	Engine Performance II		3

**Electives:** 3 courses numbered 1-99

**General Education Requirements:** 18 units

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

## **AUTOMOTIVE TECHNOLOGY**

Certificate of Achievement – Advanced Mechanics

Automotive Technology

**Required Core Courses:** 23 units

**Total Units:** 23 units

Course Number	Course Title	Fall	Spring
AT 50	Car Care Basics	3	
AT 54	Brakes	3	
AT 56	Steering and Suspension		3
AT 58	Automotive Heating and Air Conditioning		3(odd)
AT 60	Shop Management and Service Writer		2(odd)
AT 66	Manual Drive Train	4(odd)	
AT 68	Automatic Transmissions		3(odd)
AT 70	General Automotive Lab	2	2

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

## **AUTOMOTIVE TECHNOLOGY**

Certificate of Accomplishment – Basic Mechanics

Automotive Technology

**Required Core Courses:** 12 units

**Total Units:** 12 units

Course Number	Course Title	Fall	Spring
AT 50	Car Care Basics	3	
AT 54	Brakes	3	
AT 56	Steering and Suspension		3
AT 80	Basic Electrical		3

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

## **AUTOMOTIVE TECHNOLOGY**

Certificate of Achievement

Engine Repair

**Required Core Courses:** 20 units

**Total Units:** 20 units

Course Number	Course Title	Fall	Spring
AT 50	Car Care Basics	3	
AT 58	Automotive Heating and Air Conditioning		3(even)
AT 60	Shop Management and Service Writer		2(even)
AT 70	General Automotive Lab	2	2
AT 72	Engine Repair Short Block and Machining	4(even)	
AT 74	Engine Repair and Machining-Cylinder Heads	3(even)	
AT 80	Basic Electrical		3

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

## **AUTOMOTIVE TECHNOLOGY**

### Certificate of Accomplishment - Automotive Electrical

**Required Core Courses:** 12 units

**Total Units:** 12 units

Course Number	Course Title	Fall	Spring
AT 50	Car Care Basics	3	
AT 80	Basic Electrical		3
AT 82	Engine Performance I	3	
AT 84	Engine Performance II		3

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

## **AUTOMOTIVE TECHNOLOGY**

### Certificate of Completion in Automotive Chassis Maintenance

**Total number of hours for the Certificate of Completion:** 102 hours

Course Number	Course Title	Fall	Spring
AT 150	Automotive Maintenance	51	51
AT 151	Automotive Chassis System	51	51

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

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

All learning outcomes, course, program, general education, and institutional, have been the focus campus wide for the last several years. Graduate surveys are an effective way to assess program learning outcomes. We are working campus wide on a method to improve response rates to student surveys. This data will help improve learning outcomes at the course and program levels. There is also a need for training on assessing and improving both course and program learning outcomes.

All auto courses and the degree and certificates were also reviewed, updated as needed and approved by the curriculum committee. Please see the curriculum review form below.

Lassen Community College  
Status of Curriculum Reviews

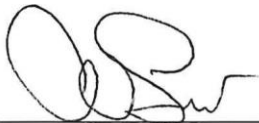
Automotive Technology Instructional Program Review  
Status of Curriculum Review April 5, 2022

Course Name	Curriculum Committee Review Completed	Curriculum Committee Review Not Completed	Course SLO main reviewed
	Date course last reviewed	Date here if last review 4 years or more	Date
AT-50 Car care Basics	02/15/2022		02/15/2022
AT-54 Brakes	02/15/2022		02/15/2022
AT-56 Steering and Suspension	02/15/2022		02/15/2022
AT-58 Automotive Heating and Air conditioning	02/15/2022		02/15/2022
AT-60 Shop Management and Service Writer	02/15/2022		02/15/2022
AT-66 Manual Drive Train	02/15/2022		02/15/2022
AT-68 Automatic Transmissions	02/15/2022		02/15/2022
AT-70 General Automotive Lab	02/15/2022		02/15/2022
AT-72 Engine Repair and Machining-Short Block	02/15/2022		02/15/2022

AT-74 Engine Repair and Machining Cylinder Heads	02/15/2022		02/15/2022
AT-80 Basic Electrical	02/15/2022		02/15/2022
AT-82 Engine Performance I	02/15/2022		02/15/2022
AT-84 Engine Performance II	02/15/2022		02/15/2022
AT-90 Automotive Survival	02/15/2022		02/15/2022
AT-90A Automotive Survival Lab	02/15/2022		02/15/2022
AT-91 Smog Check Training Level II	02/15/2022		02/15/2022
AT 150 Automotive Maintenance	02/15/2022		02/15/2022
AT 151 Automotive Chassis S stem	02/15/2022		02/15/2022

**2021-2022 Automotive Technology Program Review Page 1 Lassen Community College  
Status of Curriculum Reviews**

Degrees & Certificates			Program PSLO mapping reviewed
AS Automotive Technology	02/15/2022		02/15/2022
CA Engine Re air	04/05/2022		02/15/2022
CA Advance Mechanics	02/15/2022		02/15/2022
COA Automotive Electrical	04/05/2022		02/15/2022
COA Basic Mechanics	02/15/2022		02/15/2022
Certificate of Completion Automotive Chassis and Maintenance	02/15/2022		02/15/2022



Chad Lewis, Subject Area Faculty

4-12-22

Date



Chad Lewis, Curriculum and Academic Standards Committee Chair

4-12-22

Date



Michell Williams, Interim Dean of Instruction

4/12/2022

Date

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

There is the need for a few new courses and certificates in the auto program. The faculty and the full time faculty member are certified to offer more courses by the California Bureau of Automotive Repair than are currently offered. These include Inspector Update Training Course, Repair Technician Update Training Courses, Citation Courses, and BAR Specified Diagnostic and Repair Training Courses. The addition of these courses will allow another certificate to be offered as well. The full-time faculty member is needing additional hybrid and electric vehicle training. He is currently planning on getting ASE certification as well in the hybrid vehicle area after additional training. A hybrid and electric vehicle course will be written when faculty are trained and we have necessary tools equipment and vehicles.

- 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).

No automotive course qualifies to articulate to any UC or CSU.

- 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?

None of the auto program courses meet the area requirements to satisfy the general education requirements for transfer.

- Career/Technical programs: Attach dates of Advisory Committee meetings (a minimum of one meeting per year). Reference Committee Member Rosters and Minutes located in the Office of Academic Services. Summarize the advisory committee recommendations for program curriculum enhancement or improved student competencies.

The automotive program is accredited by the ASE Education Foundation and they require a minimum of two advisory board meetings a year. The last meeting was held December 3, 2021.

The membership is as follows:

Dr. Trevor Albertson, Lassen Community College, Superintendent/President  
 Michell Williams, Lassen Community College, Dean of Instruction for CTE  
 Fran Oberg, Lassen Community College, Executive Assistant  
 Lisa Gardiner, Lassen Community College, Work Experience Coordinator  
 Chad Lewis, Lassen Community College, Full-Time Automotive Instructor  
 Jeff Oliver, Lassen Community College, Adjunct Automotive Instructor  
 Orrin Casteel, Lassen Community College, Adjunct Automotive Instructor  
 Christy Rose, Lassen Unified High School District, K-12 SWP Coordinator  
 J.R. Thompson, Hy-Tech Auto, Owner  
 Bob Dowd, Lithia Subaru, Parts Manager  
 Chris Johnson, Susanville Auto Center, General Manager  
 Scott Purdy, Les Schwab, Manager  
 Terry Jackson, Jackson's Auto Center, Owner  
 Chrissy Adams, Alliance for Workforce Development, Career Advisor  
 Kim Keith, Alliance for Workforce Development, Youth Program Supervisor

The advisory board was asked for recommendations on curriculum and the statements are listed below. We reviewed current curriculum and only corrections and minor changes such as adding outside student hours and total learning hours were added. The other thing mentioned was the need for the college to purchase equipment needed for ADAS (Advanced Drivers Assistance Systems) calibration. These are common calibration in industry now and students will need to perform these functions.

- Career/Technical programs: Use advisory committee recommendations, labor market or other standards to answer the following question: Do the core courses in the certificates and degrees meet current employer skill requirements for the field?



The most recent advisory board meeting was held December 3<sup>rd</sup>, 2021. Several members of the advisory board, including Bob Dowd from Lithia Subaru and Chris Johnson from Susanville Ford, mentioned the need for qualified technicians in the industry. The group also recommended courses in hybrid and electric vehicles be added. There will be training and equipment required. These will be listed below in section IV. LMI data also indicates the need for automotive technicians in Northern California. The most recent LMI data is listed below. The data shows a need for automotive technicians in Northern California.

# LABOR MARKET ANALYSIS

FOR PROGRAM RECOMMENDATION



C·O·E

CENTERS OF EXCELLENCE  
FOR LABOR MARKET RESEARCH

## AUTOMOTIVE TECHNOLOGY IN THE FAR NORTH

Far North  
Center of Excellence

April 2022

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***If, for any reason, this document is not accessible or if you have specific needs for readability, please contact us, and we will do our utmost to accommodate you with a modified version. To make a request, contact Sara Phillips by phone at (530) 242-7635 or by email at [sphillips@shastacollege.edu](mailto:sphillips@shastacollege.edu).***

## SUMMARY

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The Far North Center of Excellence for Labor Market Research prepared this report to provide a labor market analysis of educational supply and occupational demand for middle-skilled career pathways in the Far North subregion. This report aims to determine if demand in the local labor market is unmet by the supply from existing community college programs and other postsecondary training providers.

This report primarily focuses on training that leads to jobs in middle-skilled occupations - jobs that typically require education beyond a high school diploma but less than a Bachelor's degree - but may include higher-skilled occupations for training pathways that lead to a bachelor's degree. Lowered skilled occupations are rarely considered in this type of analysis due to the lessened barriers for entry-level work, such as no formal education and on-the-job training requirements.

Key findings include:

- The Far North subregion held 1,970 jobs for automotive service technicians and mechanics in 2020. Jobs for automotive service technicians and mechanics are projected to remain stable over the next five years.
- Over the next five years, automotive service technicians and mechanics jobs are projected to have 205 annual openings in the Far North subregion.
- Wage data shows that automotive technology occupations earn \$2 above the subregion's living wage of \$12.74 per hour.
- Awards data analysis shows that Far North training providers conferred an average of 52 awards (certificates and associate degrees) in automotive technology programs over the last three academic years.

Recommendations include:

- The Far North Center of Excellence recommends moving forward with the program.

---

## INTRODUCTION

The Far North Center of Excellence (COE) was asked to provide labor market information for a proposed program at a regional community college. This report focuses on the following Standard Occupational Classification (SOC) occupation and code:

- This middle-skill occupation requires more education and training beyond a high school diploma but less than a four-year degree: o Automotive Service Technicians and Mechanics (49-3023)

A review of related programs revealed the following Taxonomy of Programs (TOP) title(s) and code(s) are appropriate for inclusion in this report:

- Automotive Technology (0948.00)

The corresponding Classification of Instructional Program (CIP) title(s) and code(s) are:

- Automobile/Automotive Mechanics Technology/Technician (47.0604)

## OCCUPATIONAL DEMAND

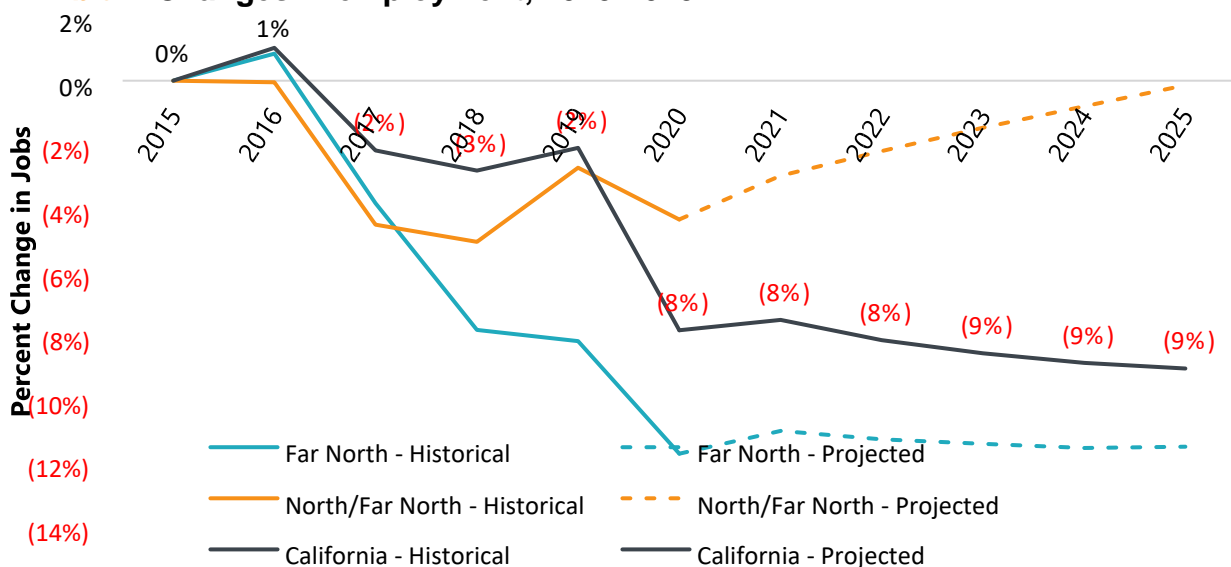
Exhibit 1 summarizes the five-year projected job growth for a middle-skill occupation in the Far North, North/Far North, and California.

**Exhibit 1. Employment and projected demand, 2020-2025**

Occupation	2020 Jobs	2025 Jobs	2020-2025 Change	2020-2025 % Change	2020-2025 Annual Openings
Automotive Service Technicians and Mechanics	1,970	1,975	5	0%	205
<b>Far North</b>	<b>1,970</b>	<b>1,975</b>	<b>5</b>	<b>0%</b>	<b>205</b>
Automotive Service Technicians and Mechanics	7,995	8,348	353	4%	884
<b>North/Far North</b>	<b>7,995</b>	<b>8,348</b>	<b>353</b>	<b>4%</b>	<b>884</b>
Automotive Service Technicians and Mechanics	77,971	76,953	(1,018)	(1%)	7,930
<b>California</b>	<b>77,971</b>	<b>76,953</b>	<b>(1,018)</b>	<b>(1%)</b>	<b>7,930</b>

Exhibit 2 compares the percent change in jobs between 2015 through 2020 and the projected changes through 2025. The rate of change is indexed to the total number of jobs in 2015.

**Exhibit 2. Changes in employment, 2015-2025**

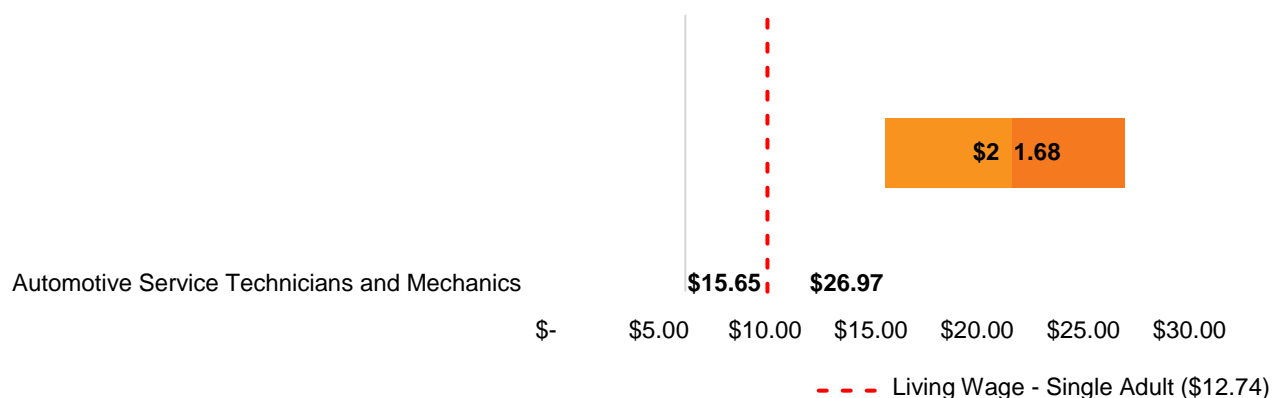


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## WAGES

Exhibit 3 compares the entry-level, median, and experienced wages for the selected occupation to the Far North living wage for a single adult - \$12.74 per hour.<sup>1</sup>

### Exhibit 3. Comparison of wages by occupation, 2020



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## JOB POSTINGS

This section of the report analyzes recent data from online job postings (real-time LMI). Online job postings may provide additional insight into recent changes in the labor market that are not captured by historical trends.

The Far North COE identified 275 online job postings for the selected occupation in the Far North subregion. Job postings data comes from Burning Glass Labor Insights and represents new listings posted online within the last year, from April 1, 2021, to March 31, 2022.

### Occupations and Job Titles

Exhibit 4 details the number of online job postings for the selected occupation.

#### Exhibit 4. Number of job postings by occupation

Occupation	Job Postings	Share of Job Postings
Automotive Specialty Technicians	263	96%
Automotive Master Mechanics	12	4%
<b>Total Job Postings</b>	<b>275</b>	<b>100%</b>

---

<sup>1</sup> Living wage is defined as the level of income a single adult with no children must earn to meet basic needs, including food, housing, transportation, healthcare, taxes, and other miscellaneous basic needs. The 25th-percentile and 75th-percentile hourly wages are used as proxy for entry-level and experienced-level wages.

Exhibit 5 shows the top 10 job titles with the most job postings and the share of job postings. All job postings included a job title.

### Exhibit 5. Top jobs titles

Job Title	Job Postings	Share of Job Postings
Automotive Technician	26	9%
Service Technician	14	5%
Lube Technician	12	4%
Truck Service Onsite Technician	8	3%
Truck Service Oil/Lube Technician	6	2%
Auto Mechanic	5	2%
Automotive Service Advisor	5	2%
Automotive Technician/Mechanic	5	2%
Shop Technician	5	2%
Automotive Mechanic/Dismantler	4	1%

## Employers

Exhibit 6 shows the top 10 employers with the most job postings for the selected occupation. Fifty-six percent (n = 155) of job postings did not include an employer.

### Exhibit 6. Employers with the most job postings

Employer	Job Postings	Share of Job Postings
Lithia Motors Incorporated	15	5%
TravelCenters of America	14	5%
Les Schwab	7	3%
Goodyear	6	2%
Pep Boys	5	2%
Employer	Job Postings	Share of Job Postings
Amerit Fleet Solutions	5	2%



Pape Group Incorporated	4	1%
Pacific Gas and Electric Company	4	1%
Mendocino Redwood Company Llc	4	1%
Totally Trucks	3	1%

## Certifications, Skills, and Experience

Exhibit 7 shows the most relevant certifications requested by employers for the selected occupation. Fifty-six percent (n = 154) of job postings did not include certification information. **Exhibit 7. Most in-demand certifications**

Certification	Job Postings	Share of Job Postings
Driver's License	99	36%
Automotive Service Excellence (ASE) Certification	27	10%
Diesel Mechanic Certification	2	1%
Certified in Small Engine Repair	1	0%
Air Brake Certified	1	0%

Exhibit 8 shows the top 10 skills across three categories for the studied occupation: specialized, human-centered, and technical skills. Twenty-eight percent (n = 76) of job postings did not include a preferred education level. The most sought-after skill in job postings is repair and auto repair.

### Exhibit 8. Most in-demand specialized skills

Top 10 Specialized Skills	Top 10 Human Skills	Top 10 Technical Skills
Repair	Teamwork / Collaboration	Microsoft Excel
Auto Repair	Physical Abilities	Computer-Assisted Auditing Technology (CAAT) services
Automotive Services Industry Knowledge	Troubleshooting	Microsoft Office

Customer Service	Organizational Skills	Microsoft Windows
Hand Tools	Communication Skills	Apple iWork
Vehicle Maintenance	Detail-Oriented	Microsoft Word
Welding	Preventive Maintenance	Oracle
Tire Repairs	Computer Literacy	
Cleaning	Multi-Tasking	
Tire Mounting	Self-Starter	

Exhibit 9 shows the minimum level of education required by employers for job postings for the selected occupation. Seventy-four percent (n = 204) of job postings did not include a preferred education level.

**Exhibit 9. Employer-preferred minimum education levels**

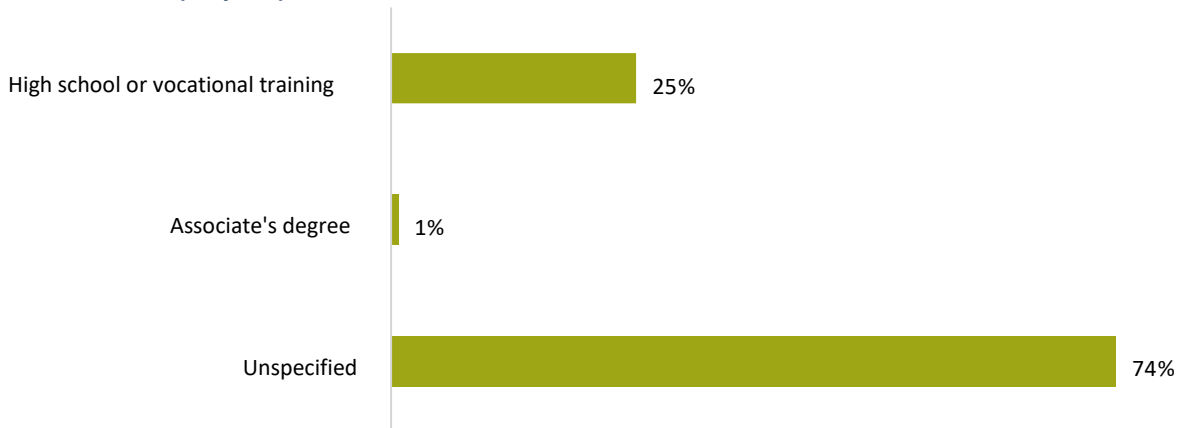
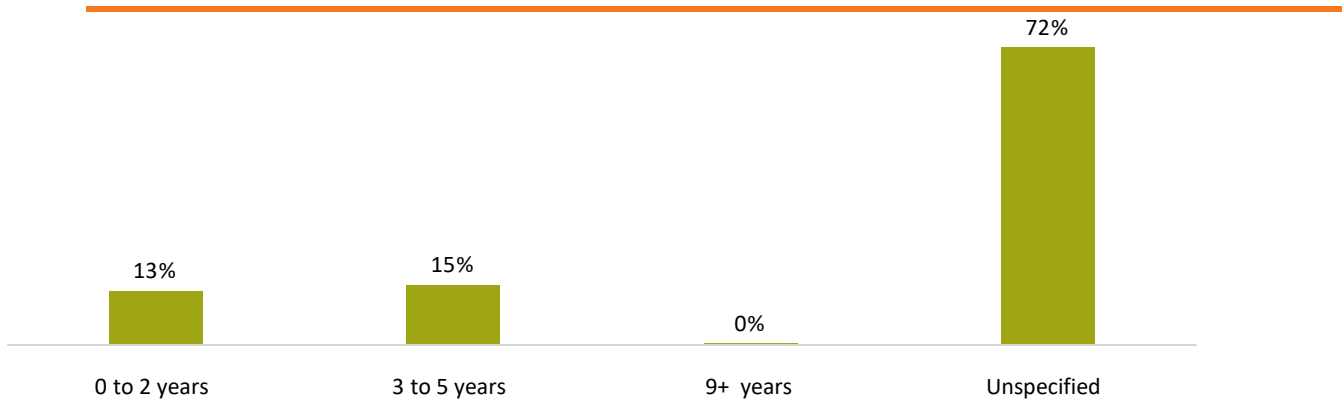


Exhibit 10 shows the experience levels required by employers for job postings for the selected occupation. Seventy-two percent (n = 198) of job postings did not include a preferred education level.

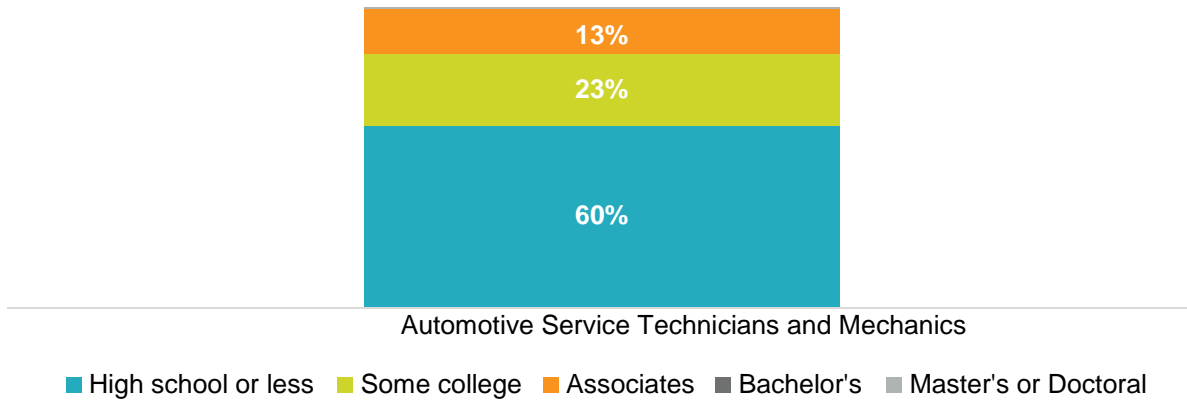
**Exhibit 10.** Employer-preferred experience levels



**EDUCATION AND TRAINING**

The U.S. Census Bureau and Bureau of Labor Statistics collects data on education achieved by workers employed in occupations. Exhibit 11 shows the national-level educational attainment of the current workforce in the selected occupation.

**Exhibit 11. National worker educational attainment for selected occupations, 2019**



The Bureau of Labor Statistics (BLS) uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which the BLS publishes projections data. Exhibit 12 shows the skill level and entry-level job requirements for the selected occupation.

**Exhibit 12. Typical education, work experience, and on-the-job training requirements**

Occupation	Typical Entry-level Education	Work Experience Required	On-the-job Training Required
Automotive Service Technicians and Mechanics	High school or less	3 to 5 years	Unspecified

Automotive Service Technicians and Mechanics

Postsecondary nondegree award

None

Short-term on-the-job training

## EDUCATIONAL SUPPLY

Educational supply for an occupation can be estimated by analyzing the number of awards issued in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes. Exhibit 13 shows the TOP and CIP codes for educational programs related to the selected occupation.

### Exhibit 13. TOP and CIP codes for training programs related to the selected occupations

TOP Programs and Codes	Aligned CIP Programs and Codes
Automotive Technology (0948.00)	Automobile/Automotive Mechanics Technology/Technician. (47.0604)

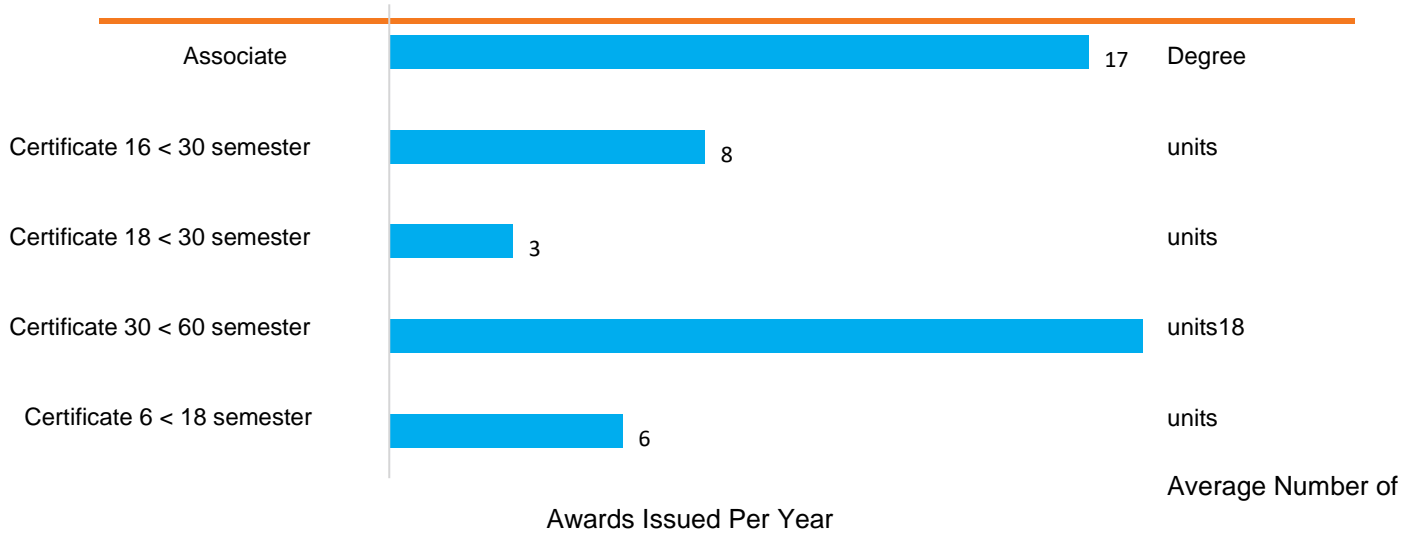
## Community College Supply

Exhibits 14 and 15 compare the average number of certificates and degrees conferred in selected community college programs over the last three academic years.

### Exhibit 14. Annual average community college awards by program, 2018-19 through 2020-21

Program - TOP Code	College	Annual Awards 2018-19	Annual Awards 2019-20	Annual Awards 2020-21	3-Yr Annual Awards Average
Automotive Technology-094800	Butte	40	11	15	22
	Lassen	5	8	3	5
	Mendocino	7	15	5	9
	Redwoods	12	6	3	7
	Shasta	11	11	3	8
	<b>Grant Total</b>	<b>75</b>	<b>51</b>	<b>29</b>	<b>52</b>

Exhibit 15. Annual average community college awards by type, 2018-19 through 2020-21



## FINDINGS

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- This report focuses on one occupation in the automotive technology pathway: Automotive Service Technicians and Mechanics.
- The Far North subregion held 1,970 automotive service technicians and mechanics jobs in 2020.
- While jobs in automotive service technicians and mechanics are projected to decline across the state over the next five years, Far North mechanic jobs are projected to remain relatively stable.
- Over the next five years, automotive service technicians and mechanics are projected to have 205 annual openings in the Far North subregion.
- Wage data shows that automotive service technicians and mechanics earn \$2 above the subregion's living wage of \$12.74 per hour.
- According to real-time labor market information, there were about 275 online job postings for automotive service technicians and mechanics between April 1, 2021, and March 31, 2022.
- Approximately 36% of incumbent automotive service technicians and mechanics have educational attainment levels consistent with community college offerings (some college or associate degrees). Sixty percent of workers hold a high school diploma.
- Five Far North community colleges offer degrees and certificates in programs related to automotive technology. Together, these programs conferred an average of 52 awards (certificates and associate degrees) in automotive technology programs over the last three academic years (2018-19 through 2020-21).

## RECOMMENDATIONS

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- Based on a three-year average of annual awards in Far North region automotive technology programs and projected yearly openings, the supply gap analysis shows that the region seems to have room for additional training. o Together, community colleges and other postsecondary training providers issued an average of 52 awards over the last three years. o There are 205 projected annual openings for automotive technology jobs.
- The Far North Center of Excellence recommends moving forward with the program.

**COE Recommendation**

<b>Move forward with the program</b>	<b>Proceed with caution</b>	<b>Program is not recommended</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## APPENDIX A. METHODOLOGY AND SOURCES

Occupations in this report were identified using the Center of Excellence TOP-to-CIP-to-SOC crosswalk and O\*Net OnLine. This report's findings were determined using labor market data from the Bureau of Labor Statistics (BLS), U.S. Census Bureau data from Emsi, and jobs posting data from Burning Glass. Cal-PASS Plus LaunchBoard. California Community Colleges Chancellor's Office.

<https://www.calpassplus.org/LaunchBoard/Home.aspx>.

Emsi 2022.1; QCEW Employees, Non-QCEW Employees, and Self-Employed.

<https://www.economicmodeling.com/>. EMSI occupational employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors).

Educational Attainment for Workers 25 Years and Older by Detailed Occupation, 2016-2017. Bureau of Labor Statistics. <https://www.bls.gov/emp/tables/educationalattainment.htm#>.

Integrated Postsecondary Education Data System (IPEDS). National Center for Education Statistics. U.S. Department of Education. <https://nces.ed.gov/ipeds/>.

"Labor Insight Real-Time Labor Market Information Tool." Burning Glass Technologies. <http://www.burning-glass.com>.

Labor Market Information Division. California Employment Development Department. <https://labormarketinfo.edd.ca.gov/>.

Management Information Systems (MIS) Data Mart. California Community Colleges Chancellor's Office. <https://datamart.cccco.edu/>.

Occupational Employment Statistics (OES). Bureau of Labor Statistics. <https://www.bls.gov/oes/home.htm>.

O\*NET OnLine. U.S. Department of Labor/Employment and Training Administration (DOL ETA). <https://www.onetonline.org/>.

Self-Sufficiency Standard Tool for California. The University of Washington.  
<http://www.selfsufficiencystandard.org/>

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"Taxonomy of Programs." California Community Colleges Chancellor's Office. June 2012, 6<sup>th</sup> Edition. <https://www.cccco.edu/-/media/CCCCO-Website/AboutUs/Divisions/Educational-Services-and-Support/Academic-Affairs/What-wedo/Curriculum-and-Instruction-Unit/Files/TOPmanual6200909corrected12513pdf.ashx>

"TOP-CIP-SOC Crosswalk." Centers of Excellence for Labor Market Research. November 2015 Edition.  
<http://coecc.net/>



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**COVID-19 Statement:** This report includes employment projection data by EMSI. EMSI's projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy during the projection period will be at approximately full employment or potential output. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, they may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Other measures such as unemployment rates and monthly industry employment estimates will reflect the most recent information on employment and jobs in the state and, in combination with input from local employers, may help validate current and future employment needs as depicted here.

**Important Disclaimer:** All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. Efforts have been made to qualify and validate the accuracy of the data and the reported findings; however, neither the Centers of Excellence, COE host District, nor California Community Colleges Chancellor's Office are responsible for applications or decisions made by recipient community colleges or their representatives based upon components or recommendations contained in this study.

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Centers of Excellence for Labor Market Research, Economic and  
Workforce Development Program



CENTERS OF EXCELLENCE  
FOR LABOR MARKET RESEARCH

FOR MORE INFORMATION,  
PLEASE CONTACT:

Sara Phillips, Director

Far North Center of Excellence

[sphillips@ShastaCollege.edu](mailto:sphillips@ShastaCollege.edu)

- Special Programs: By nature, special programs themselves do not lead to a degree or certificate. However, special programs may have coursework that is included in transfer or vocational degrees or certificates. Note the relationship between special program courses and LCC transfer or vocational degrees or certificates.

This does not apply to the automotive program.

### 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.

#13 Assess and improve graduate student surveys to improve response rates.

#14 Provide training on writing effective learning outcomes.

## B. Courses

### Description/Evaluation:

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

IPR. None

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.
  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.
  5. The signed Instructional Program Curriculum Review Form is to be included with your completed program review documents for all certificates and degrees.

As discussed above, all of the courses in the automotive program were reviewed and approved by the curriculum committee. New courses in the areas of hybrid and electric vehicles when faculty have been trained and tools and equipment have been purchased are needed.

### Planning Agenda:

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

As listed in previous planning agenda, #2 states the need to develop curriculum for hybrid and electric vehicles.

### 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)

---

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).and the units requirements for Lassen Community College courses as compared to four-year institutions.

No automotive courses articulate with any four-year institution.

### Planning Agenda:

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

None

### III. Scheduling and Enrollment

#### Patterns Description/Evaluation:

1. Describe and explain any deviation from the two-year plan in course scheduling during the last four years.

We have a new dual enrollment cohort with the high school. Students in this cohort are offered AT 50 Car Care Basics, AT 54 Brakes, AT 56 Steering and Suspension, and AT 80 Basic Electrical. These students will earn the Certificate of Accomplishment in Basic Mechanics if they complete all of the courses with passing grades. The 2 year rotation has been updated to reflect these changes. Additional sections of these classes are offered if enrollment needs require it.

2. Evaluate the relationship between schedule, enrollment patterns and FTE generated statistics.

Automotive courses are scheduled at a variety of times of the day to accommodate student's needs. Late afternoon and evenings seem to work best based on enrollment patterns. High school students, however have benefited from courses scheduled early in the day. The auto program continues to be flexible and schedules courses to best accommodate student needs.

3. 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:

- a. Number of sections (too many/too few to serve student needs)
- b. Variety of times (three times a week, twice a week, one day a week and morning/afternoon/evening)

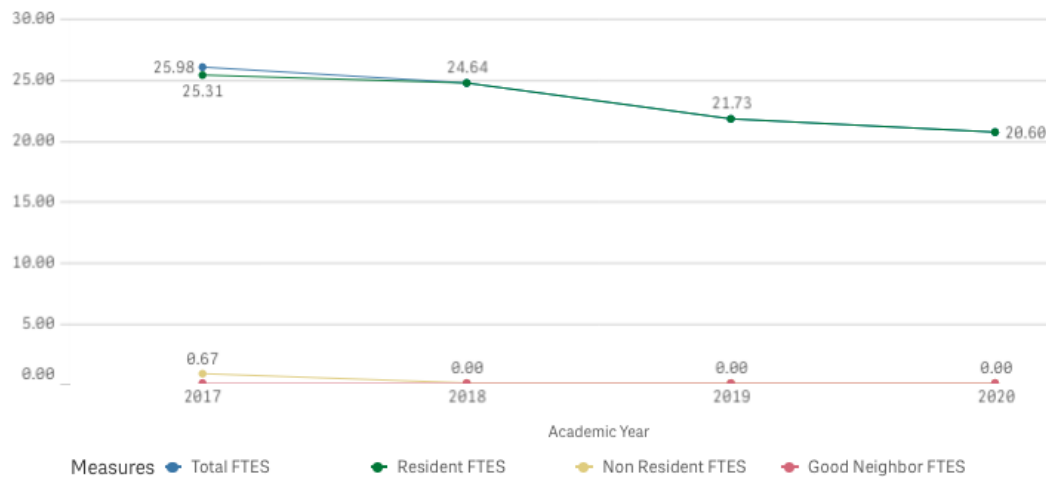
c. Length of courses (traditional semester/short term)

d. Method of delivery (traditional/technology-mediated/correspondence delivered instruction).

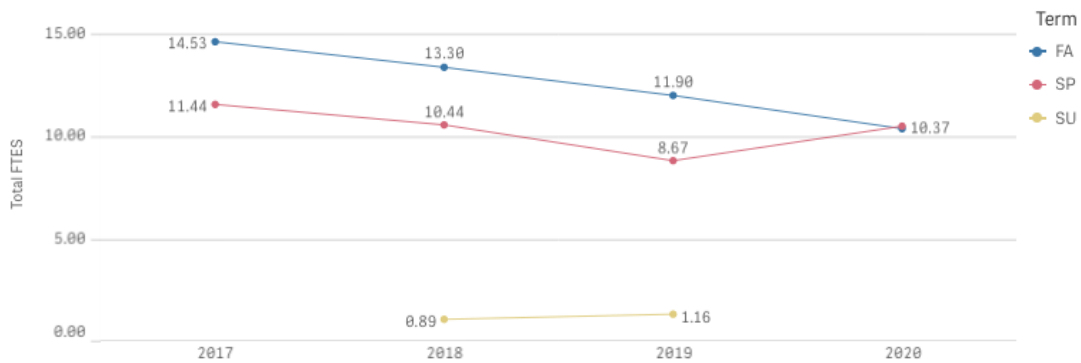
The data provided for FTES is not helpful for this IPR. The data is current through 2020 and there was a full program review written last year. There continues to be a need for marketing and recruitment to improve enrollment. Students are surveyed to determine the best times to schedule courses. Instructor availability plays a factor in this as well.

## FTES

FTES by Academic Year



FTES by Semester



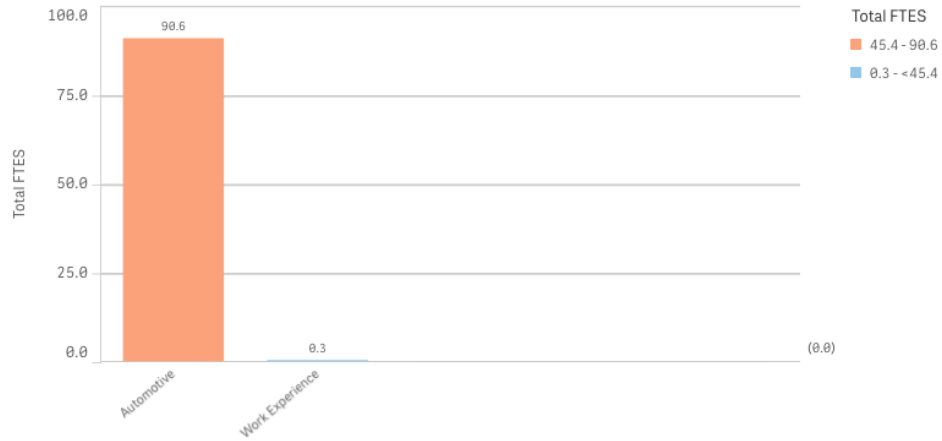
**FTES by Year**

Academic Year	Resident FTES	Non Resident FTES	Good Neighbor FTES	Total FTES	Total FTES YOY change
Totals	92.28	0.67	0.00	92.94	-
2020	20.60	0.00	0.00	20.60	-5.16%
2019	21.73	0.00	0.00	21.73	-11.82%
2018	24.64	0.00	0.00	24.64	-5.16%
2017	25.31	0.67	0.00	25.98	-

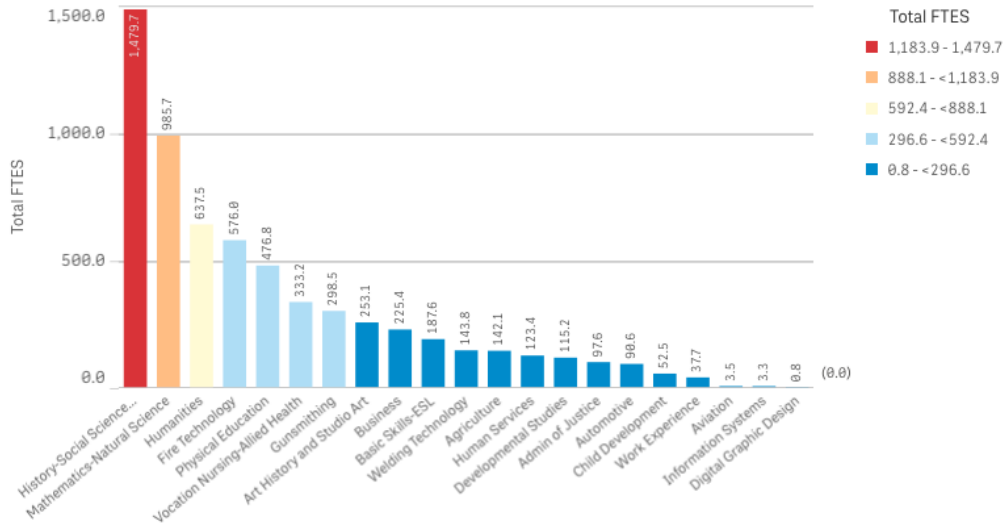
**FTES by Program**

Program	Academic Year		Semester		2017		2018		2019		2020	
	Totals				FA	SP	FA	SP	FA	SP	FA	SP
	<b>Totals</b>	<b>90.89</b>	<b>14.53</b>	<b>11.44</b>	<b>13.30</b>	<b>10.44</b>	<b>11.90</b>	<b>8.67</b>	<b>10.23</b>	<b>10.37</b>		
Automotive	90.59	14.53	11.44	13.30	10.41	11.80	8.67	10.10	10.34			
Work Experience	0.30	-	-	-	0.03	0.10	-	0.13	0.03			

**FTES by Program**



FTES by Program

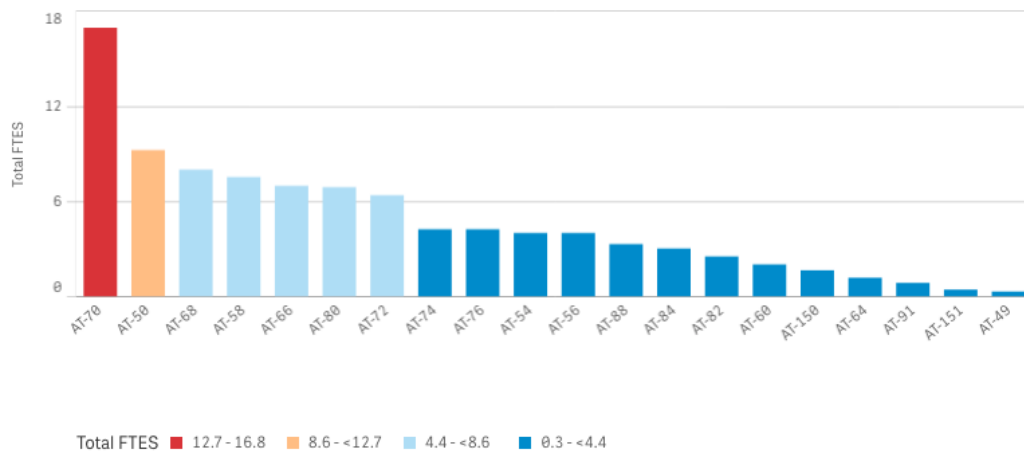


FTES for All Programs (for comparative purposes/reference)

FTES by Course

Course	Academic Year		Semester											
	Totals		2017		2018			2019			2020			
	FA	SP	FA	SP	FA	SU	SP	FA	SU	SP	FA	SP		
AT-49	0.30	-	-	-	-	-	0.03	0.10	-	-	0.13	0.03		
AT-50	9.17	-	-	-	2.33	-	-	1.83	-	-	5.00	-		
AT-54	3.97	-	-	-	-	-	2.57	-	-	-	-	1.40		
AT-56	3.97	-	-	-	-	-	1.87	-	-	-	-	2.10		
AT-58	7.47	-	-	3.03	-	-	-	-	-	3.27	-	1.17		
AT-60	2.00	-	-	0.67	-	-	-	-	-	1.07	-	0.27		
AT-64	1.17	-	-	-	-	-	1.17	-	-	-	-	-		
AT-66	6.93	3.73	-	-	-	-	-	3.20	-	-	-	-		
AT-68	7.93	4.20	-	-	-	-	-	3.03	-	-	-	0.70		
AT-70	16.82	3.60	3.02	-	-	-	3.40	2.40	-	3.00	-	1.40		
AT-72	6.33	-	-	-	4.67	-	-	-	-	-	1.67	-		
AT-74	4.20	-	-	-	3.03	-	-	-	-	-	1.17	-		
AT-76	4.20	-	-	-	2.60	-	-	-	-	-	1.60	-		
AT-80	6.83	2.00	-	-	-	-	1.17	-	-	-	0.67	3.00		
AT-82	2.50	-	-	1.17	-	-	-	1.33	-	-	-	-		
AT-84	3.00	1.00	-	-	0.67	-	-	-	-	1.33	-	-		
AT-88	3.27	-	-	3.27	-	-	-	-	-	-	-	-		
AT-91	0.84	-	-	0.29	-	-	-	0.24	-	-	-	0.30		
AT-150	1.63	-	-	-	-	0.47	-	-	-	1.16	-	-		
AT-151	0.42	-	-	-	-	0.42	-	-	-	-	-	-		

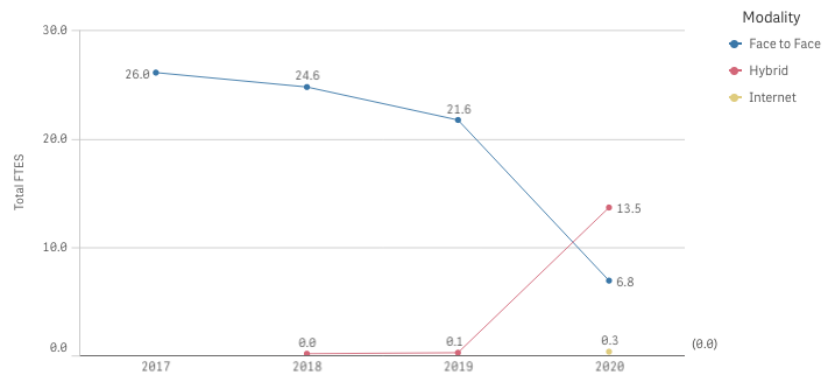
**FTES by Course**



**FTES by Modality and Academic Year**

Modality	Academic Year		Semester							
	2017		2018			2019			2020	
	FA	SP	FA	SU	SP	FA	SU	SP	FA	SP
Face to Face	14.5	11.4	13.3	0.9	10.4	11.8	1.2	8.7	5.1	1.7
Internet	-	-	-	-	-	-	-	-	-	0.3
Hybrid	-	-	-	-	0.0	0.1	-	-	5.1	8.4

**FTES by Modality and Academic Year**





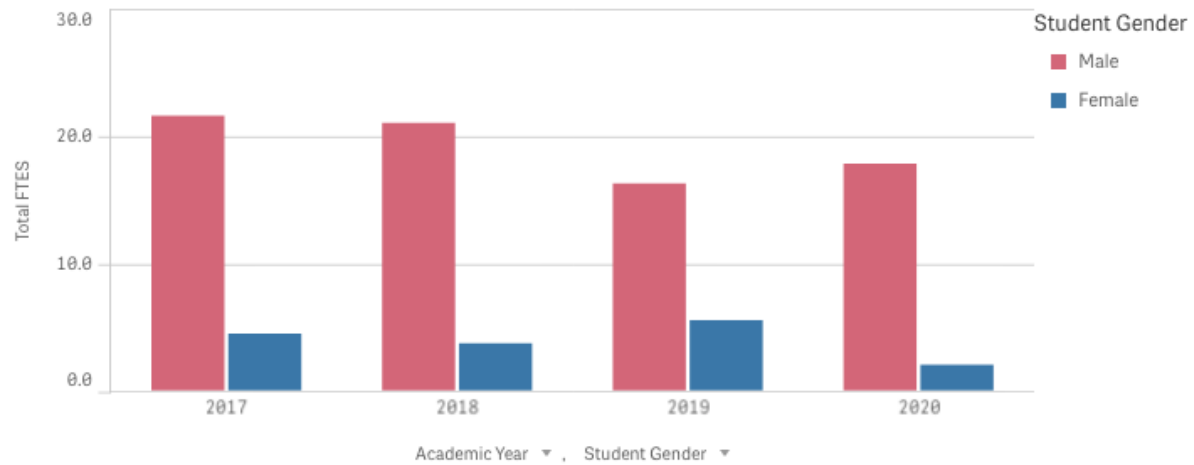
### FTES by Class and Modality

Modality ▼ Section ▼	Academic Year ▼		Semester ▼				
	2017	2018			2019		
	SP	FA	SU	SP	FA	SU	SP
<b>Face to Face</b>	<b>11.4</b>	<b>13.3</b>	<b>0.9</b>	<b>10.4</b>	<b>11.8</b>	<b>1.2</b>	<b>8.7</b>
AT-50-M0438	-	2.3	-	-	1.8	-	-
AT-54-M4056	-	-	-	2.6	-	-	-
AT-56-M4057	-	-	-	1.9	-	-	-
AT-58-M4888	3.0	-	-	-	-	-	3.3
AT-60-M4068	0.7	-	-	-	-	-	1.1
AT-64-M4055	-	-	-	1.2	-	-	-
AT-66-M0439	-	-	-	-	3.2	-	-
AT-68-M0443	-	-	-	-	3.0	-	-
AT-70-M0448	-	-	-	-	2.4	-	-
AT-70-M5067	3.0	-	-	3.4	-	-	3.0
AT-72-M1123	-	4.7	-	-	-	-	-
AT-74-M1124	-	3.0	-	-	-	-	-
AT-76-M1125	-	2.6	-	-	-	-	-
AT-80-M0449	-	-	-	-	-	-	-
AT-80-M1127	-	-	-	-	-	-	-
AT-80-M4058	-	-	-	1.2	-	-	-
AT-82-M0447	1.2	-	-	-	1.3	-	-
AT-84-M1026	-	0.7	-	-	-	-	-
AT-84-M4826	-	-	-	-	-	-	1.3
AT-88-M4067	3.3	-	-	-	-	-	-
AT-91-M3952	0.3	-	-	0.2	-	-	-
AT-150-K5145	-	-	-	-	-	1.1	-
AT-150-K5146	-	-	-	-	-	0.1	-
AT-150-M5356	-	-	0.5	-	-	-	-
AT-151-M5357	-	-	0.4	-	-	-	-
<b>Internet</b>	-	-	-	-	-	-	-
AT-60-N4068	-	-	-	-	-	-	-
<b>Hybrid</b>	-	-	-	<b>0.0</b>	<b>0.1</b>	-	-
AT-49-Y0075	-	-	-	-	0.1	-	-
AT-49-Y4014	-	-	-	0.0	-	-	-
AT-50-Y1190	-	-	-	-	-	-	-
AT-54-Y3557	-	-	-	-	-	-	-
AT-56-Y3558	-	-	-	-	-	-	-
AT-58-Y4888	-	-	-	-	-	-	-
AT-68-Y3546	-	-	-	-	-	-	-
AT-80-Y4058	-	-	-	-	-	-	-

**FTES by Student Gender**

Student Gender ▼	Academic Year ▼		Semester ▼		2017		2018			2019			2020	
	FA	SP	FA	SU	SP	FA	SU	SP	FA	SU	SP	FA	SP	
	Male	11.8	9.7	11.3	0.9	8.7	9.6	0.1	6.4	9.3	8.4			
Female	2.7	1.7	2.0	-	1.7	2.3	1.0	2.2	0.4	1.6				

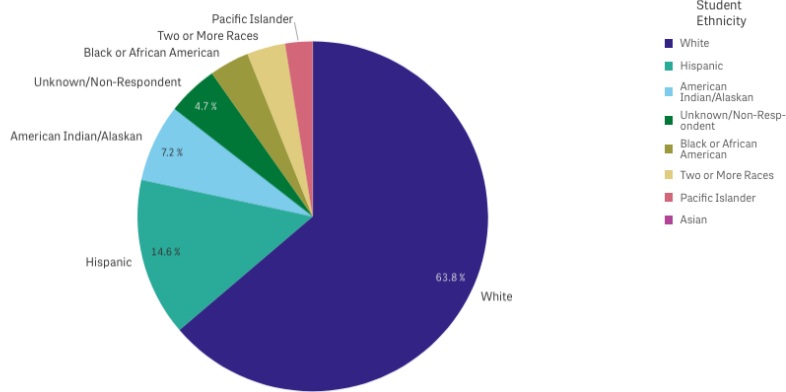
**FTES by Student Gender**



**FTES by Student Ethnicity**

Student Ethnicity ▼	TER_ACADEMIC... ▼				
	Totals	2017	2018	2019	2020
Unknown/Non-Respondent	4	-	-	2	2
White	59	19	17	11	12
Hispanic	14	2	5	4	3
Pacific Islander	2	1	1	0	0
American Indian/Alaskan	7	1	-	3	3
Black or African American	3	-	2	1	0
Asian	0	-	0	-	-
Two or More Races	3	2	1	0	0

FTES by Student Ethnicity \*

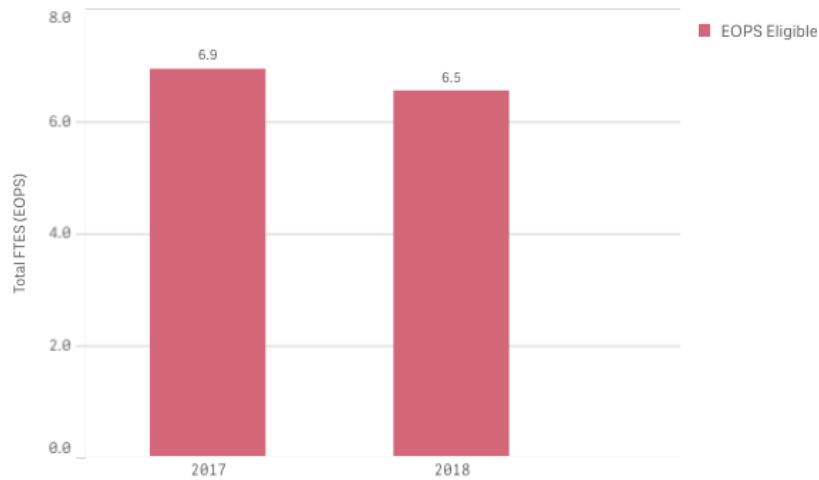


**CalWORKS: Special Program FTES Data not included as Headcount N<10**  
**Disabled: Special Program FTES Data not included as Headcount N<10**

FTES, EOPS Eligible

EOPS	Academic Year	
	2017	2018
EOPS Eligible	6.9	6.5

FTES, EOPS Eligible



**EOPS: Special Program FTES Data for AY 19-20 and 20-21 not included as Headcount N<10**

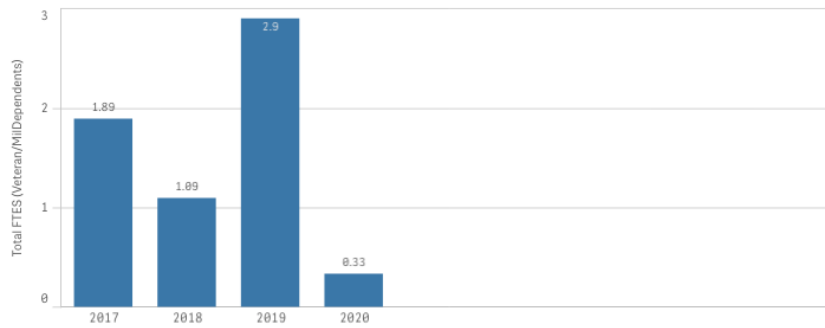
**CARE: Special Program FTES Data not included as Headcount N<10**

## Foster Youth: Special Program FTES Data not included as Headcount N<10

FTES - Veterans and Military Dependents

Veteran Status	Academic Year			
	2017	2018	2019	2020
Parent/Guard Veteran	1.5	0.7	2.4	0.3
Veteran Discharged in Last Year	0.4	0.4	0.4	-
Veteran Discharged over 1 Year	0.0	-	0.1	-

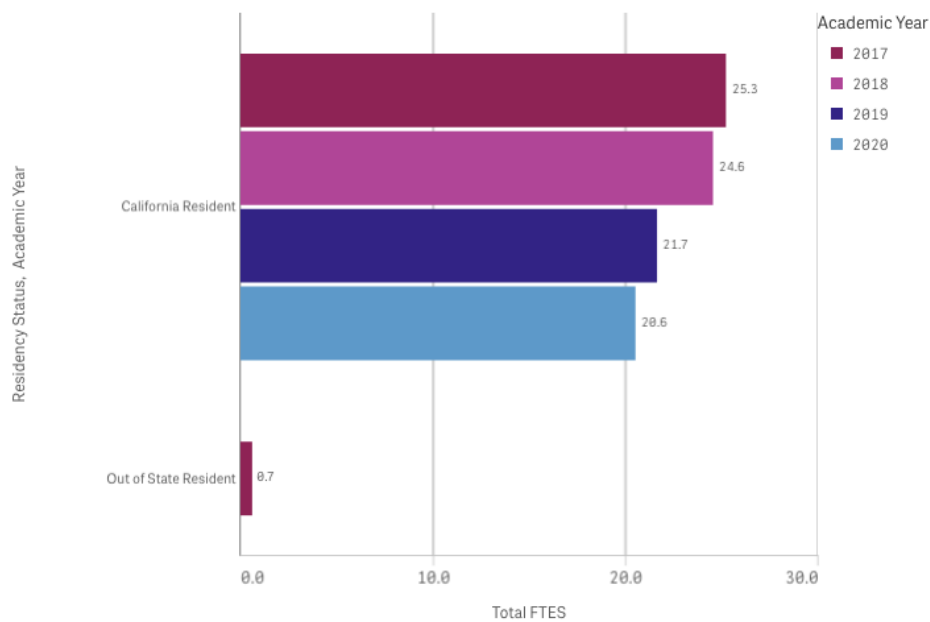
FTES - Veterans and Military Dependents



FTES by Academic Year and Residency Status

Residency Status	Academic Year			
	2017	2018	2019	2020
California Resident	25.3	24.6	21.7	20.6
Out of State Resident	0.7	-	-	-

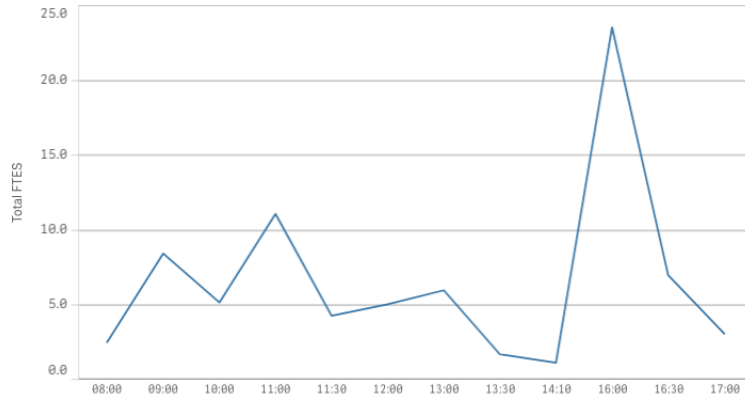
FTES by Academic Year and Residency Status



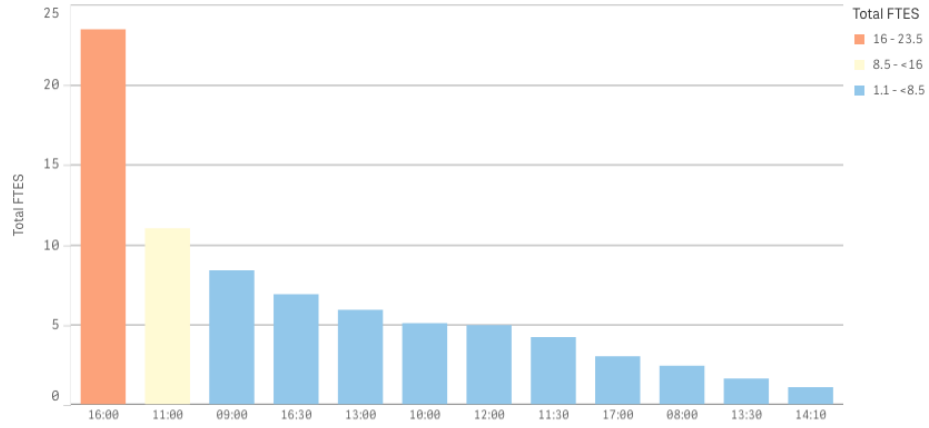
FTES by Time of Day

Time of Day	Academic Year		Semester											
	2017		2018			2019		2020						
	FA	SP	FA	SU	SP	FA	SP	FA	SP	FA	SP			
08:00	-	0.3	-	-	2.1	-	-	-	-	-	-			
09:00	-	-	4.7	0.9	-	1.3	-	-	1.2	0.3	-			
10:00	3.7	0.7	-	-	-	-	-	0.7	-	-	-			
11:00	-	3.0	-	-	2.6	2.4	3.0	-	-	-	-			
11:30	4.2	-	-	-	-	-	-	-	-	-	-			
12:00	-	1.2	2.6	-	1.2	-	-	-	-	-	-			
13:00	2.0	-	0.7	-	-	1.8	-	-	-	1.4	-			
13:30	-	-	-	-	-	-	-	1.6	-	-	-			
14:10	-	-	-	-	-	-	1.1	-	-	-	-			
16:00	1.0	6.3	5.4	-	4.6	6.2	-	-	-	-	-			
16:30	3.6	-	-	-	-	-	3.3	-	-	-	-			
17:00	-	-	-	-	-	-	1.3	1.7	-	-	-			

FTES by Time of Day



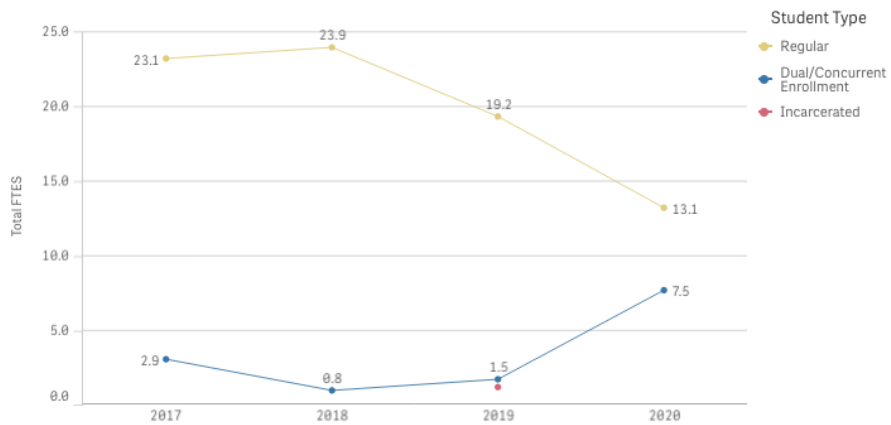
FTES by Time of Day



FTES by Student Type\_Semester

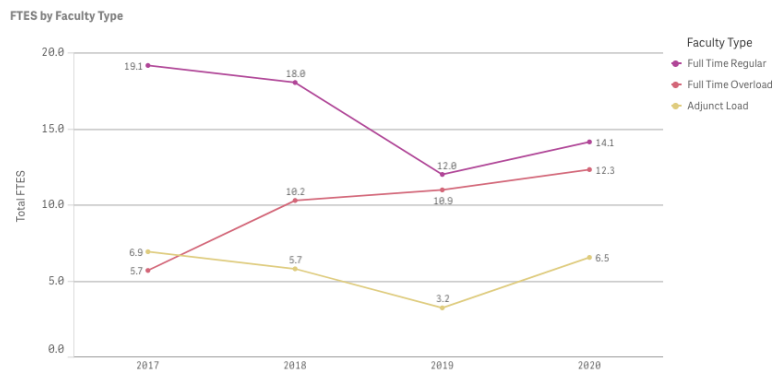
Student Type	Academic Year		Semester							
	2017		2018			2019			2020	
	FA	SP	FA	SU	SP	FA	SU	SP	FA	SP
Regular	13.7	9.4	12.9	0.9	10.1	11.1	0.1	8.0	5.9	7.2
Dual/Concurrent Enrollment	0.9	2.0	0.4	-	0.4	0.8	-	0.7	4.4	3.2
Incarcerated	-	-	-	-	-	-	1.0	-	-	-

FTES by Student Type and Academic Year



FTES by Faculty Type

Faculty Type	Academic Year		Semester							
	2017		2018		2019		2020			
	FA	SP	FA	SU	SP	FA	SU	SP	FA	SP
Full Time Regular	10.9	8.2	11.0	-	7.0	6.3	-	5.7	8.6	5.5
Full Time Overload	4.2	1.5	4.7	0.9	4.7	5.4	1.2	4.3	10.1	2.2
Adjunct Load	3.6	3.3	2.3	-	3.4	3.2	-	-	1.6	4.9



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

Core automotive program courses are generally scheduled in the early morning or in the late afternoon and evening to best accommodate student's needs. There are occasional courses scheduled in the middle of the day depending on the two-year rotation schedule. When this happens, counseling is contacted and the best days and times are determined to avoid courses conflicting with general education courses when possible.

**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.

#15 Provide current and accurate data for program reviews.

#16 Continue to schedule auto courses according to the two-year rotation, student input and data to meet student needs.

**IV. Equipment**

Description/Evaluation:

- List capital outlay equipment, age of equipment and replacement schedule

Many of the tools and equipment are quite old and are in need of replacement. There has never been a replacement schedule for automotive tools and equipment. The items listed are things that need to be either replaced because of age and wear or purchased to comply with state or federal

standards for the courses. New equipment needs also arise as vehicle technology changes. For example, a new car lift is needed because the old, outdated lift failed.

---

2. Identify any existing equipment maintenance/service agreements.

None

3. Evaluate the condition of capital outlay equipment in light of the replacement schedule and available funds.

Again, there is no replacement schedule for any of our equipment, however, much of our equipment is old. For example, our steam cleaner is about 25 years old and our cylinder head and block surfer is about 40 years old. The majority of tools and equipment in the auto program are funded primarily by VTEA funds, Perkins funds, and other available grants such as Strong Workforce. Below is a list of tools and equipment that are needs for the auto program

Steam Cleaner	\$4,700
Bench Brake Lathe	\$11,000
Cooling system flush gun kit	\$475
Stretch belt tool	\$35
Stretch belt tool	\$47
Stretch belt tool	\$25
Belt and pulley alignment tool	\$200
Belt idler pulley install tool	\$185
BFX-3 Brake flush system	\$4,750
CarTrain "Hybrid and All Electric Vehicle Technology Trainer with accessories	\$61,000
CarTrain "Diagnosis and Maintenance of a High Voltage Battery with accessories	\$61,500
4 post car lift, including installation	\$16,000
Engine Head and Cylinder Surfer and boring machine	\$50,000
Van Norman 180000 XLX CRANKSHAFT BALANCER (220/1/60)	\$30,000



Large TV for shop area to share scanner and lab scope screens for class to see	\$5,000
Transmission flush machine and accessories	\$5,800

- Evaluate the effectiveness of and need for additional maintenance/service agreements.

We have no existing service contracts.

- Justify any proposed modification or additions to equipment available for students and/or faculty/instructional assistants within the program.

The above list is not in order of importance and can be purchased as funds are available. The steam cleaner is to replace an old unit. The old unit leaks hot water and can burn the user. The brake lathe is to replace an old and worn unit. The cooling system flush gun is needed for proper cooling system maintenance and we do not have equipment for this. The belt tools are for stretch belts. Many cars now use belts with no tensioners and special tools are required to remove and install these belts. The brake flush machine is required because all vehicles now require regularly flushing the brake fluid as a maintenance requirement and this is the tool used commonly in industry. The hybrid and electric vehicle trainers are needed to be able to create courses in these areas. There is curriculum available for purchase with these systems as well. The lift is an immediate need to replace a lift that has failed. The TV would be very helpful to share the screen on various scopes, scanners and workstations for all students to be able to see the screen. Finally, the engine head and cylinder surfer and crankshaft balancer are needed for the engine rebuild classes to replace broken and outdated equipment.

#### 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.

#17 Purchase listed tools and equipment as funds are available.

V: Outside Compliance Issues (if appropriate for program)

#### Description:

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

## Evaluation:

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

---

ASE Education Foundation needs to be re-certified every 5 years and there are expenses that vary when the re-certification time comes. \$2,500 is an estimate of the cost.

## 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.

#18 Fund ASE Education Foundation re-certification as needed.

#19 Fund AllData and ShopKey subscriptions annually.

## VI. 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 Assess and improve course SLO's and PSLO's. Implement improved learning outcomes assessment. Implement a method of reviewing previous course SLO results before each course is taught to improve learning outcomes based on data.

#3. Create marketing materials for the auto program. All CTE programs would benefit from a formal advertising program.

### 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. 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.

Automotive Technology 2022 *Note: "Estimated Cost" includes calculated Total Cost of Ownership as described in Section I*

<b>Strategic Goal</b>	<b>Planning Agenda Item</b>	<b>Implementation Time Frame</b>	<b>Estimated Cost * (implementation &amp; ongoing)</b>	<b>Expected Outcome</b>
1,2,4	Assess and improve course SLO's and PSLO's. Implement improved learning outcomes assessment. Implement a method of reviewing previous course SLO results before each course is taught to improve learning outcomes based on data.	2023	Unknown	Improve learning outcomes, student success and better meet ACCJC accreditation standards
1,2	Create marketing materials for the auto program. All CTE programs would benefit from a formal advertising program.	Immediately	Unknown	Improve enrollment and FTES.
2,4	4 post car lift, including installation	Immediately, to replace fail car lift.	\$15,000	This is necessary for many auto repair functions.
2,4	Steam cleaner	2022-2023	\$4,700	Improve student safety as old unit can burn the user.
2,4	Brake flush system	2022-2023	\$4,750	Improve learning outcomes and keep up with industry standards.
2,4	Belt tools	2022-2023	\$500	Improve learning outcomes and keep up with industry standards.
2,4	CarTrain Hybrid and All Electric Vehicle Technology Trainer with accessories	2022-2023	\$61,000	This trainer is needed to teach hybrid and electric vehicle courses.
2,4	CarTrain "Diagnosis and Maintenance of a High Voltage Battery with accessories	2022-2023	\$61,500	This trainer is needed to teach hybrid and electric vehicle courses.

2,4	Large TV for shop area to share scanner and lab scope screens for class to see	2022-2023	\$5,000	Better student learning in shop setting.
2,4	Transmission flush machine	2022-2023	\$5,800	Replace outdated equipment and improve learning outcomes. Keep up with industry standards
2,4	Engine Head and Cylinder Surfacers and boring machine	2022-2023	\$50,000	Replace outdated and broken equipment. Keep up with industry standards.
2,4	Van Norman 180000 XLX CRANKSHAFT BALANCER (220/1/60)	2022-2023	\$30,000	Replace broken crankshaft balancer. This will enable us to teach to the course outline.

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.

Automotive Technology 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

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.

Automotive Technology 2022

\*

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

<b>Strategic Goal</b>	<b>Planning Agenda Item</b>	<b>Implementation Time Frame</b>	<b>Estimated Cost * (implementation &amp; ongoing)</b>	<b>Expected Outcome</b>
1,2,3	Assess previous course SLO data before every semester to close the loop on assessment and improve student learning.	2022-2023	Unknown	Improve learning outcomes and better meet ACCJC accreditation standards
1,2,3	Work with the IE office, accreditation tri-chairs, and Senate to better assess PSLO's.	2022-2023	None	Improve learning outcomes and better meet ACCJC
1,2,3	Assess and improve graduate student surveys to improve response rates.	2022-2023	None	Improve learning outcomes and better meet ACCJC
1,2,3	Provide training on writing effective learning outcomes.	2022-2023	None	Improve learning outcomes and better meet ACCJC
1	Provide current and accurate data for program reviews.	2023-2024	None	Improve program review accuracy.

## Section Two: Human Resource Planning

### I. Program Staffing

---

#### Description/Evaluation:

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

The auto program is currently staffed with one full-time faculty member, Chad Lewis and one adjunct faculty member, Jeff Oliver. The other previous adjunct instructor, Orrin Casteel, recently moved. The program also has one ISS, Rocky Kotaro.

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.

The program is in need of more adjunct faculty to teach scheduled courses. The last several summers, Rocky has extended his contract to work summers. This is essential for him to complete equipment maintenance when classes are not scheduled. The ISS position needs to be made a 12 month position.

#### 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.

#20 Hire qualified adjunct faculty.

#21 Make ISS position a 12 month position.

### 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].

In order to teach BAR smog classes, the full time faculty member must maintain a valid BAR inspector license, BAR repair license, and a BAR instructor license. The inspector license and repair license require updates training every two years. The instructor license requires a yearly update course. ASE Education Foundation requires a minimum of 20 hours per year of approved professional development. Currently, these are available via Zoom because of the COVID pandemic. When these trainings change back to in-person activities, faculty will need to attend these. All of these activities were listed on flex contracts.

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.)

The full-time faculty member has been heavily involved with various accreditation activities over the last couple of years and attended various online trainings. The full-time faculty member also serves as the curriculum chair and attended various trainings such as the curriculum institute provided by ASCCC.

---

#### 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.

#22 Continue to attend professional development opportunities as possible.

### III. Student Outcomes

#### Description/Evaluation:

Description/Evaluation:

Describe any results from assessment of learning outcomes that affect human resource planning  
None

#### 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.

#23 Make automotive ISS position a 12 month position

#24 Hire qualified adjunct instructors

### 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.

#2 Write curriculum for hybrid and electric vehicles.

#4 Update local certificates to better align with updated two year advising plan.

#5 Continue to work with the local high school and charter schools to recruit students to boost enrollment.

#7 Assess previous course SLO data before every semester to close the loop on assessment and improve student learning.

#16 Continue to schedule auto courses according to the two-year rotation, student input and data to meet student needs.

#### 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.

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.

Automotive Technology 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
3	Make automotive ISS position a 12 month position	Summer 2023	This has already been funded the last several summers by extending the contract	Improve equipment and tool lifespan.
2,3,4	Hire qualified adjunct faculty	Immediately	These costs are already covered either by faculty overload or adjunct contract costs.	Improve student learning

### Section Three: Facilities Planning

#### I. Facilities

##### Description/Evaluation:

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

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

None

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

A/C needs to be added to the office, tool room, and classroom area. Very often the temperature exceeds 90 degrees in the late spring, summer, and early fall times of the semester. This is excessive and violates OSHA standards for working conditions. Cooling of some kind also needs to be added to the shop. Again, the temperature is often excessive to promote student learning. Tables and chairs



need to replace the current desks in the classroom. As mentioned previously, the heating system is quite loud. A study needs to be performed to see if other options are available.

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

There is a fenced area near the shop for students to park project vehicles. The gate leading to this area is too small. A vehicle occasionally needs to be towed in and very often the tow truck can't fit through the gate. The vehicle must then be pushed to the gate.

**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.

#25 Widen gate to auto parking area.

**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.

**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.

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

Automotive Technology 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
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2,4	Provide tables and chairs for the classroom.	2022-2023	\$5,000	This will provide a much more learning environment for students. This has been included in the current budget process from previous IPR's.
3,4	Provide A/C for the tool room, classroom, and instructor's office and some form of cooling for the shop area.	2022-2023	Unknown	Improve student learning.
3,4	Inspect and recommend updates to the heating system for quieter operation.	2022-2023	None	Improve student learning
3	Widen gate to auto parking area.	2022-2023	\$5,000	Improve shop functionality and safety when moving dead vehicles around.

## Section Four: Technology Planning

### I. . Technology

#### Description/Evaluation:

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

There is a need for a large screen TV in the shop. Our scanner and lab scope work station, alignment machine, and Subaru factory scan tool all have small screens. It is difficult or impossible for all students to clearly see the screens when the faculty member is performing various lab demonstrations. A large TV mounted in the shop would fix this issue.

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

The information stated above is also identified by assessment of SLO's. For example, SLO number two in AT 56 Steering and Suspension, is to demonstrate use of specialized tools and equipment in performing steering and suspension work. Other courses have similar SLO's that require demonstration the use of special tools. Proper demonstrations will improve these learning outcomes.

#### 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.

## 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.

These items were stated above.

### Prioritized Recommendation 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.

### Prioritized Recommendations Inclusion in Institutional Technology Master Plan: The ITMP addresses the technology needs of the campus.

Automotive Technology 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
2,4	Install large screen TV in the shop.	2022-2023	\$5,000	Improve student learning outcomes.

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Insert information as needed

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Insert information as needed

Insert information as needed

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Insert information as needed

Insert information as needed

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## 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.

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, NOT 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:

Transfer to a 4-year Institution

IGETCCertification

CSUCertification

Transfer to another

Degrees/Certificates:

AA/AS

Certificate of Achievement Certificate of Completion

Certificate of Accomplishment

Title of Degree or Certificate:

General Interest:

Job Requirement

Continuing Education

Personal Development

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

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Core Requirements for degree or certificate

Job Requirements

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Elective for degree or certificate

Continuing Education

General Education course for degree or transfer

Personal Development

Other: Please Specify

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?**

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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:**

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**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.**

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

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## 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

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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

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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**

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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

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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

**LASSEN COMMUNITY**  
**COLLEGE COURSE LIST BY**  
**PROGRAM**

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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

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#### 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,

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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

#### Special Educational Programs:

#### 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  

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49, CT  
49, FS 49, GSS 49, HO 49, HUS 49, JOUR 49, WT 49, WE 1, WE 2



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**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 to Assessment faculty to**\_\_\_\_\_ The review of materials generated in the classroom. In addition 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 of Learning**\_\_\_\_\_ Students display knowledge and skills as they respond directly to the assessment itself.
- Full-time Equivalent to that Faculty (FTEF)**\_\_\_\_\_ The amount of instructional employee time expressed in a proportion 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 Programssatisfying Associate degree requirements, CSU Certification, or IGETC.

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

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 \_\_\_\_\_ A measurable educational objective as a consequence of participation in an Outcomeorganized 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 \_\_\_\_\_ A condition of enrollment that a student is advised, but not Preparation 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 \_\_\_\_\_ An overarching specific observable characteristic developed by Outcome 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 \_\_\_\_\_ The class hour or contact hour is the basic unit of attendance for

Hours (WSCH) 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.

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