

# Lassen Community College Automotive Technology Program Review 2018 and 2020

**LASSEN COMMUNITY COLLEGE**

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## SECTION 1: ACADEMIC PLANNING

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

#### Program Overview

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 components. 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.

#### 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:**

The Automotive Technology mission and goals 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.

### **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.

All of the Automotive Technology Program Student Learning Outcomes link to the Lassen Community College Institutional Student Learning Outcomes, which are posted below.

### **INSTITUTIONAL STUDENT LEARNING OUTCOMES**

Upon the completion of any course, educational activity or program, the student will demonstrate improvement in one or more of these areas:

#### **ISLO 1: Communication**

Ability to listen and read with comprehension and the ability to write and speak effectively.

#### **ISLO 2: Critical Thinking**

Ability to analyze a situation, identify and research a problem, propose a solution or desired outcome, implement a plan to address the problem, evaluate progress and adjust the plan as appropriate to arrive at the solution or desired outcome.

#### **ISLO 3: 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 library to access and analyze information for relevance and accuracy; ability to navigate systems.

#### **ISLO 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.

Two new non-credit courses have been added to the Automotive Technology curriculum since the last program review. They include AT 150 Automotive Maintenance and AT 151 Automotive Chassis System. AT 150 was offered the summer of 2019 to inmates in the county jail to great success. AT 151 will be offered the future semesters at the jail as well.

The automotive program achieved ASE Education Foundation accreditation in September 2019. This led to the program being able to become a Subaru-U school as well. This provides the student the same training an entry level Subaru technician is required to take. These were huge accomplishments for the program in terms of more opportunities for students. The program continues to teach California Bureau of Automotive courses so a student can qualify to take the exam to be a smog inspector license as well. In the fall of 2020 the Lassen College Automotive program also partnered with the Ford

Automotive Career Exploration (ACE) program. Ford Automotive Career Exploration is a partnership program between Ford Motor Company, Ford / Lincoln dealerships, and secondary and post-secondary educational institutions. The intent of the program is to raise awareness and increase interest in career opportunities within the automotive industry, ultimately as a service technician. There are no fees to educational institutions to participate in the Ford ACE program.

Automotive service technicians and mechanics remains a solid career choice according to the Bureau of Labor Statistics. The 2020 median pay was \$22.48 per hour or \$46,760 per year nationally. California led the way with 59,380 jobs in this field and Washington DC had the top wages of \$64,640 per year or \$29.50 per hour. These as well as other statistics are available at the BLS website here <https://www.bls.gov/ooh/installation-maintenance-and-repair/automotive-service-technicians-and-mechanics.htm>

The automotive service technicians and mechanics data by state is listed here. <https://www.bls.gov/oes/current/oes493023.htm>

The Automotive Technology Program and all CTE programs could benefit from marketing and advertising. A promotional video was created for all CTE programs. The link for the automotive video is [here](#). There has been some articles in the local paper regarding the new Subaru program and donations from Subaru. The faculty member also makes rounds to the local high schools and charter schools to talk with students about the program. New brochures are in the process of being created as well.

### **Planning Agenda:**

**#1 A review of the programs mission, goals, course and program student learning outcomes by advisory committee and incorporated in the next curriculum review.**

**#2 Write curriculum for hybrid and electric vehicle maintenance and repair.**

**#3 Advertising and marketing needs to be created for the automotive program and all CTE areas specifically about the Subaru-U and Ford ACE programs.**



## II Student Outcomes

### A. Trends and Patterns in Student Outcomes

#### Description/Evaluation:

The enrollment in the automotive program has been in decline for the last few years. A lack of marketing and advertising is some of the reason. The COVID pandemic has been an influence in enrollment as well. After years of work, a dual enrollment agreement has been made with the local high school and began the fall of 2020. This has been an enormous success and will improve enrollment for the program. The first class had 27 students. This will be a great recruiting tool for the program. We need to do a better job highlighting training opportunities such as Subaru-U and the Ford ACE program to perspective students.

#### Awards Data

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

Associate in Science Degree in Automotive Technology

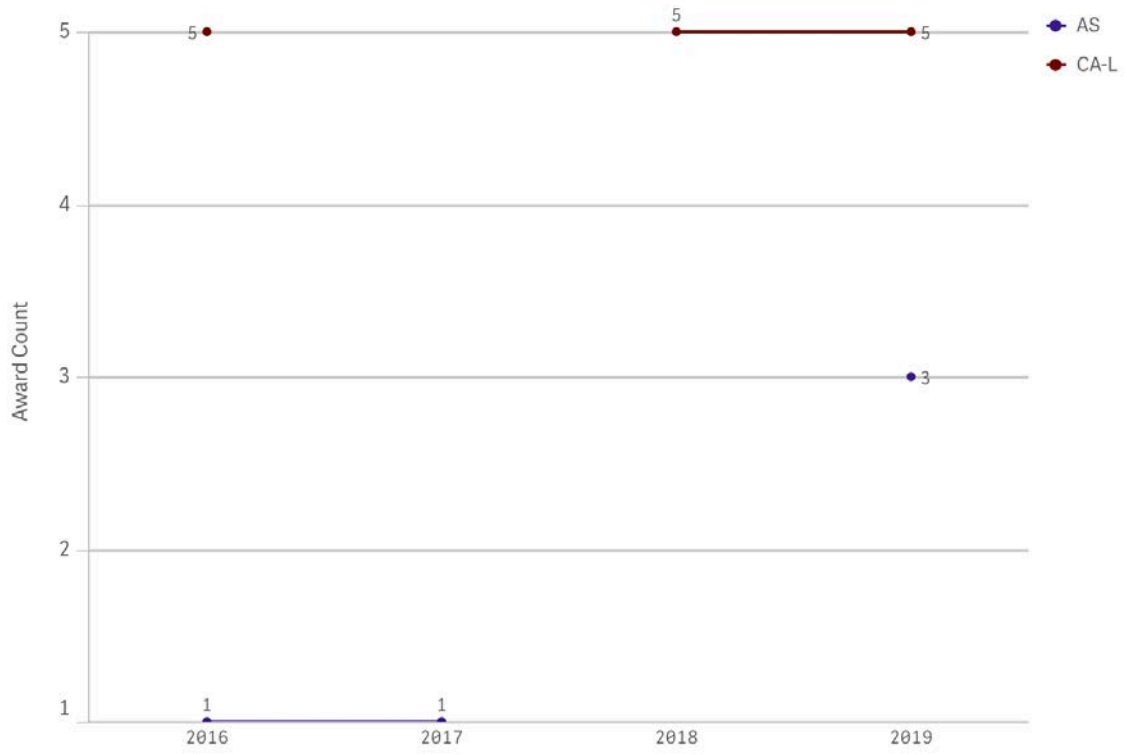
Certificate of Achievement in Advanced Mechanics

Certificate of Achievement in Engine Repair

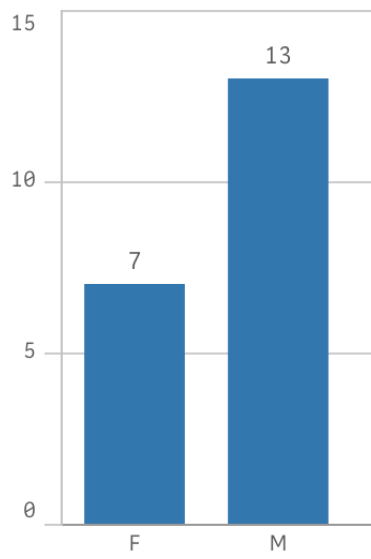
Certificate of Accomplishment Basic Mechanics

Certificate of Accomplishment in Electrical

### Degrees and Certificates Awarded By Academic Year



### Awards By Gender



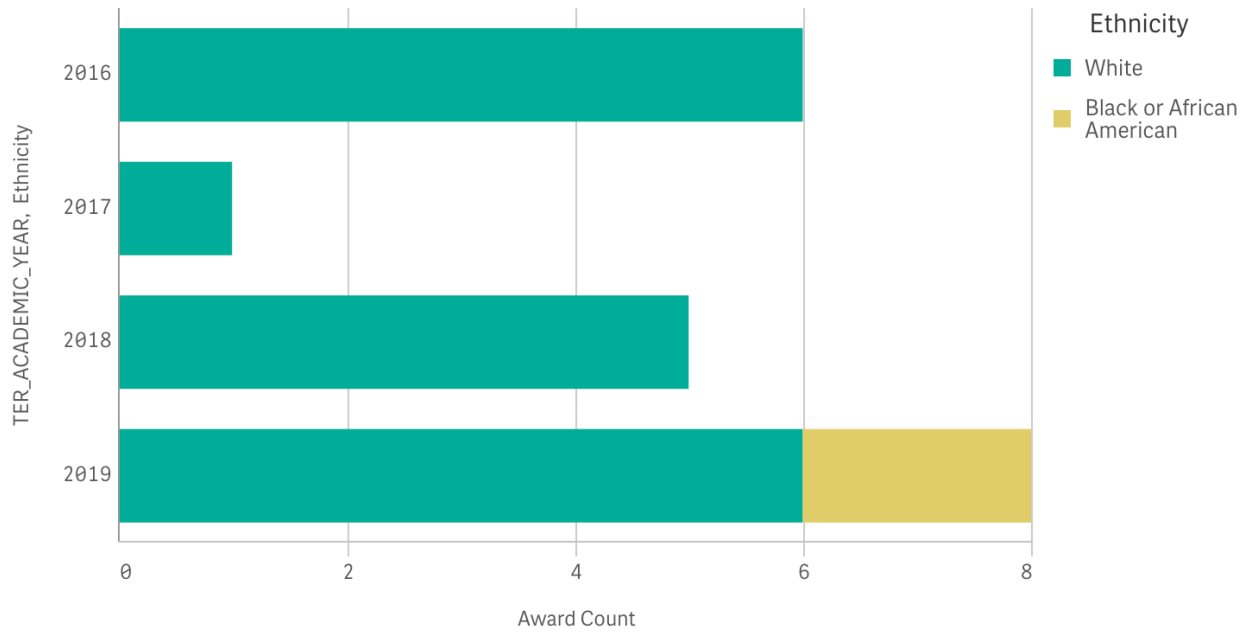
### Awards by Academic Year

Academic Year	Award	Award Count
<b>Totals</b>		<b>20</b>
2016	AS Automotive Technology	1
2016	Cert. of Achievement Advanced Mechanics	3
2016	Cert. of Achievement Engine Repair	2
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

### Awards by Type and Academic Year

Award Type	Academic Year			
	2016	2017	2018	2019
Cert. of Achievement Advanced Mechanics	3	-	2	4
AS Automotive Technology	1	1	-	3
Cert. of Achievement Engine Repair	2	-	3	1

**Awards (Completions) by Ethnicity**



- Local Certificates:

**Certificates of Accomplishment**

Subject:	Academic Year of Award			
	2016-17	2017-18	2018-19	2019-20
Automotive Electrical	4	0	1	3
Basic Mechanics	3	0	2	2
General Mechanics	3	0	1	1

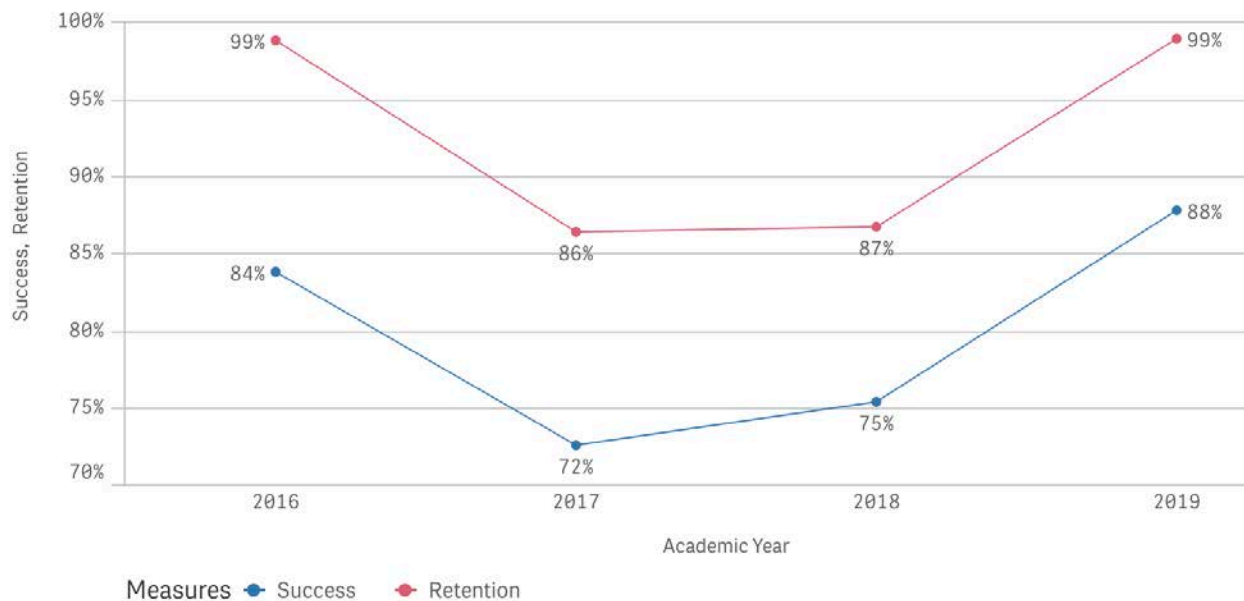
The number of degrees and certificates remains low. One can speculate that some students are “skills builders” who take courses necessary for them to gain employment and are not concerned with earning the degree. Focus has been on the advantages certificates and degrees can have in the long run. Current students are more focused on earning the degree.

B. Transfer numbers for the last four years: There have been no automotive students that have transferred as auto courses are not transferable. One automotive program graduate did however go on to UNR to pursue a degree in mechanical engineering with the goal of designing cars.

C. Retention and success data:

- Student retention and success rates by program

**Student Success and Retention**



- Student success rates by class

**Student Success Rate by Class (Section)**

Section	Academic Year and Semester											Section Average
	2016			2017		2018			2019			
	SU	FA	SP	FA	SP	SU	FA	SP	SU	FA	SP	
AT-49-Y0075										100%		100%
AT-49-Y4014								100%				100%
AT-80-M4058								100%				100%
AT-90-M5516	100%											100%
AT-90A-M5518	100%											100%
AT-91-M0732	100%											100%
AT-91-M3952					100%			100%				100%
AT-70-M0448				90%						100%		95%
AT-84-M1026				83%			100%					92%
AT-56-M4057			80%					100%				90%
AT-70-M5067	100%		83%		78%			86%			100%	89%
AT-64-M4055								86%				86%
AT-84-M4826											86%	86%
AT-66-M0439				71%						100%		86%
AT-88-M4067					85%							85%
AT-54-M4056			79%					90%				84%
AT-80-M0449				83%								83%
AT-76-M1125		87%					78%					82%
AT-68-M0443				72%						92%		82%
AT-64-M1122		78%										78%
AT-74-M1124		92%					62%					77%
AT-82-M0447			78%		57%					88%		74%
AT-50-M4624			73%									73%
AT-72-M1123		95%					50%					73%
AT-50-M0438							50%			82%		66%
AT-80-M1127		63%										63%
AT-60-M4068					44%						80%	62%
AT-58-M4888					46%						73%	59%
AT-49-Y5795	0%											0%
AT-150-K5145												
AT-150-K5146												
AT-150-M5356												
AT-151-M5357												
AT-49-Y0231												
<b>Semester and Academic Year Averages</b>	100%	87%	81%	80%	87%		89%	94%		98%	93%	<b>89%</b>
	89%			84%		92%			95%			

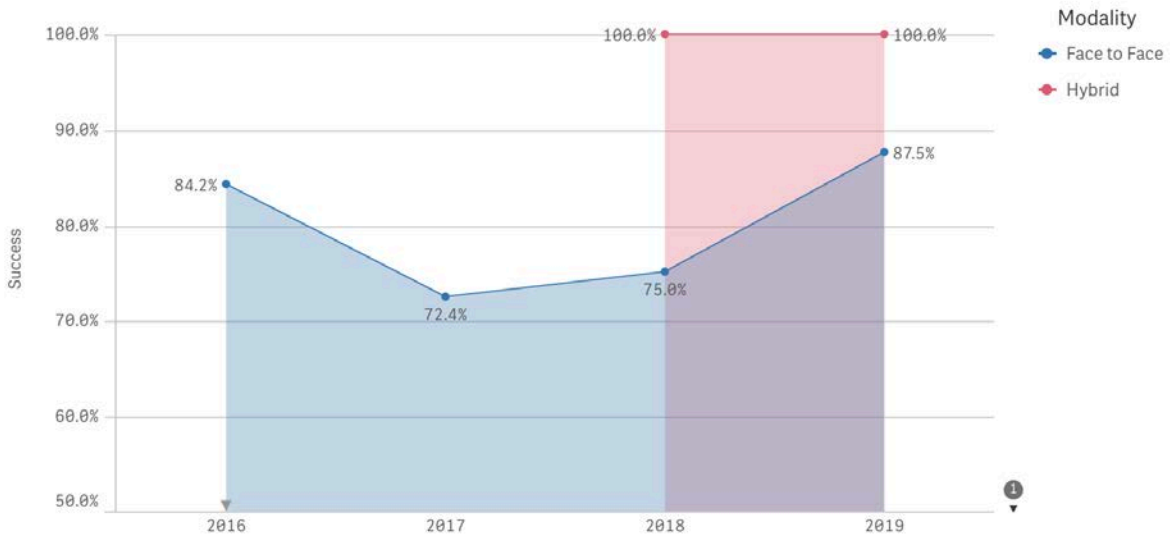
- Student retention rates by class

**Student Retention Rate by Class (Section)**

Section	Academic Year and Semester											Section Average
	2016			2017		2018			2019			
	SU	FA	SP	FA	SP	SU	FA	SP	SU	FA	SP	
AT-49-Y0075										100%		100%
AT-49-Y4014								100%				100%
AT-49-Y5795	100%											100%
AT-50-M4624			100%									100%
AT-56-M4057			100%					100%				100%
AT-64-M1122		100%										100%
AT-64-M4055								100%				100%
AT-80-M4058								100%				100%
AT-84-M4826											100%	100%
AT-90-M5516	100%											100%
AT-90A-M5518	100%											100%
AT-91-M0732	100%											100%
AT-91-M3952					100%			100%				100%
AT-70-M5067	100%		100%		89%			100%			100%	98%
AT-68-M0443				94%						100%		97%
AT-50-M0438							93%			100%		96%
AT-66-M0439				93%						100%		96%
AT-82-M0447			100%		86%					100%		95%
AT-54-M4056			100%					90%				95%
AT-70-M0448				90%						100%		95%
AT-76-M1125		100%					89%					94%
AT-88-M4067					92%							92%
AT-84-M1026				83%			100%					92%
AT-80-M0449				92%								92%
AT-80-M1127		88%										88%
AT-60-M4068					67%						100%	83%
AT-74-M1124		92%					69%					81%
AT-72-M1123		100%					57%					79%
AT-58-M4888					62%						91%	76%
AT-150-K5145												
AT-150-K5146												
AT-150-M5356												
AT-151-M5357												
AT-49-Y0231												
<b>Semester and Academic Year Averages</b>	100%	96%	100%	90%	83%		82%	99%		100%	98%	<b>94%</b>
	99%			86%		90%			99%			

- Student success rates by modality

Success Rates by Modality and Academic Year

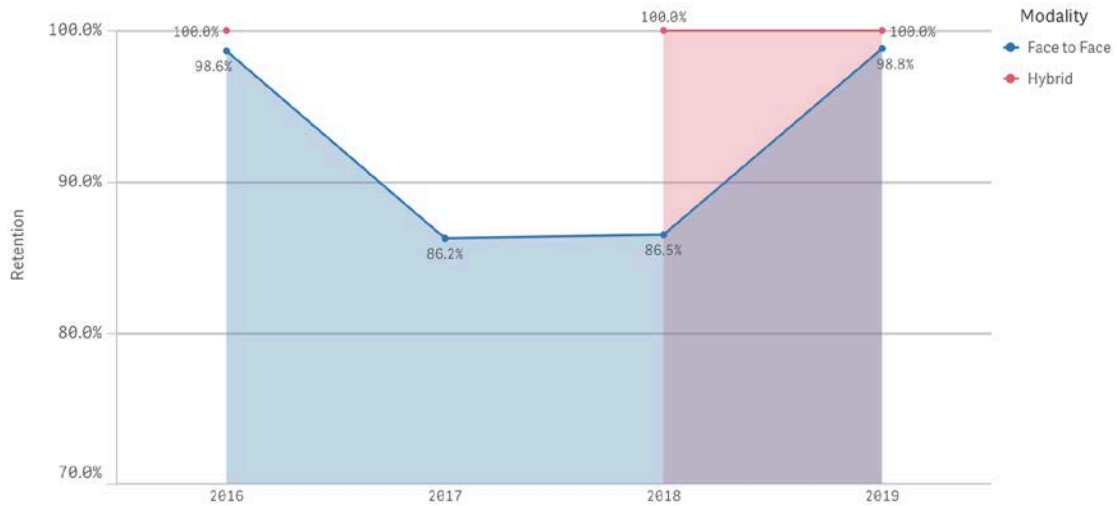


Student Success Rates by Modality

Modality	Academic Year and Semester																Modality Average
	2016				2017				2018				2019				
	SU	FA	SP	Totals	FA	SP	Totals	SU	FA	SP	Totals	SU	FA	SP	Totals		
Face to Face	93%	86%	79%	86%	78%	66%	72%	-	60%	93%	77%	-	92%	80%	86%	80%	
Hybrid	0%	-	-	0%	-	-	-	-	-	100%	100%	-	100%	-	100%	67%	

- Student retention rates by modality

Retention Rates by Modality and Academic Year





### Student Retention Rates by Modality

Modality	Academic Year and Semester															Modality Average
	2016				2017			2018				2019				
	SU	FA	SP	Totals	FA	SP	Totals	SU	FA	SP	Totals	SU	FA	SP	Totals	
Face to Face	100%	97%	100%	99%	92%	80%	86%	-	77%	98%	88%	-	100%	97%	98%	93%
Hybrid	100%	-	-	100%	-	-	-	-	-	100%	100%	-	100%	-	100%	100%

- Student success rates by time of day

### Student Success by Time of Day

Start Time:	Academic Year and Semester												Time Average:
	2016			2017			2018			2019			
	SU	FA	SP	FA	SP	SU	FA	SP	SU	FA	SP		
1:00PM			78.4%	83.3%		-	100.0%		-	81.8%			85.9%
2:00PM	100.0%	62.5%				-			-				81.3%
2:10PM						-			-			80.0%	80.0%
4:00PM		95.2%	80.0%	83.3%	81.2%	-	55.8%	92.9%	-	95.8%			83.5%
4:30PM			83.3%	90.0%		-			-			72.7%	82.0%
5:00PM		92.3%				-			-			85.7%	89.0%
8:00AM					100.0%	-		100.0%	-				100.0%
9:00AM	100.0%					-	50.0%		-	87.5%			79.2%
10:00AM	100.0%	77.8%	72.7%	71.4%	44.4%	-			-				73.3%
11:00AM		86.7%			46.2%	-		90.0%	-	100.0%	100.0%		84.6%
11:30AM				72.2%		-			-				72.2%
12:00PM					57.1%	-	77.8%	85.7%	-				73.5%
(blank)	0.0%					-		100.0%	-	100.0%			66.7%
<b>Semester and Academic Year Averages:</b>	<b>75.0%</b>	<b>82.9%</b>	<b>78.6%</b>	<b>80.1%</b>	<b>65.8%</b>	<b>-</b>	<b>70.9%</b>	<b>93.7%</b>	<b>-</b>	<b>93.0%</b>	<b>84.6%</b>		<b>80.5%</b>
		<b>78.8%</b>		<b>72.9%</b>			<b>82.3%</b>			<b>88.8%</b>			

- Student retention rates by time of day

### Student Retention by Time of Day

Start Time:	Academic Year and Semester												Time Average:
	2016			2017			2018			2019			
	SU	FA	SP	FA	SP	SU	FA	SP	SU	FA	SP		
1:00PM			100.0%	91.7%		-	100.0%		-	100.0%			98.3%
2:00PM	100.0%	87.5%				-			-				95.8%
2:10PM						-			-			100.0%	100.0%
4:00PM		100.0%	100.0%	83.3%	90.6%	-	81.0%	100.0%	-	100.0%			93.3%
4:30PM			100.0%	90.0%		-			-			90.9%	93.6%
5:00PM		92.3%				-			-			100.0%	96.2%
8:00AM					100.0%	-		100.0%	-				100.0%
9:00AM	100.0%					-	57.1%		-	100.0%			85.7%
10:00AM	100.0%	100.0%	100.0%	92.9%	66.7%	-			-				91.9%
11:00AM		100.0%			61.5%	-		90.0%	-	100.0%	100.0%		90.3%
11:30AM				94.4%		-			-				94.4%
12:00PM					85.7%	-	88.9%	100.0%	-				91.5%
(blank)	100.0%					-		100.0%	-	100.0%			100.0%
<b>Semester and Academic Year Averages:</b>	<b>100.0%</b>	<b>96.0%</b>	<b>100.0%</b>	<b>90.5%</b>	<b>82.5%</b>	<b>-</b>	<b>81.6%</b>	<b>98.6%</b>	<b>-</b>	<b>100.0%</b>	<b>97.7%</b>		<b>94.1%</b>
		<b>98.7%</b>		<b>86.5%</b>			<b>90.1%</b>			<b>98.9%</b>			

## 2. Evaluation

Although the retention and success rates are quite good for the automotive program the enrollment is low. 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 will help.

### Planning Agenda:

#4 Continue to work with area high schools to recruit students and offer courses for the high school students that work with their schedules.

#3 Increase advertising for the automotive program.

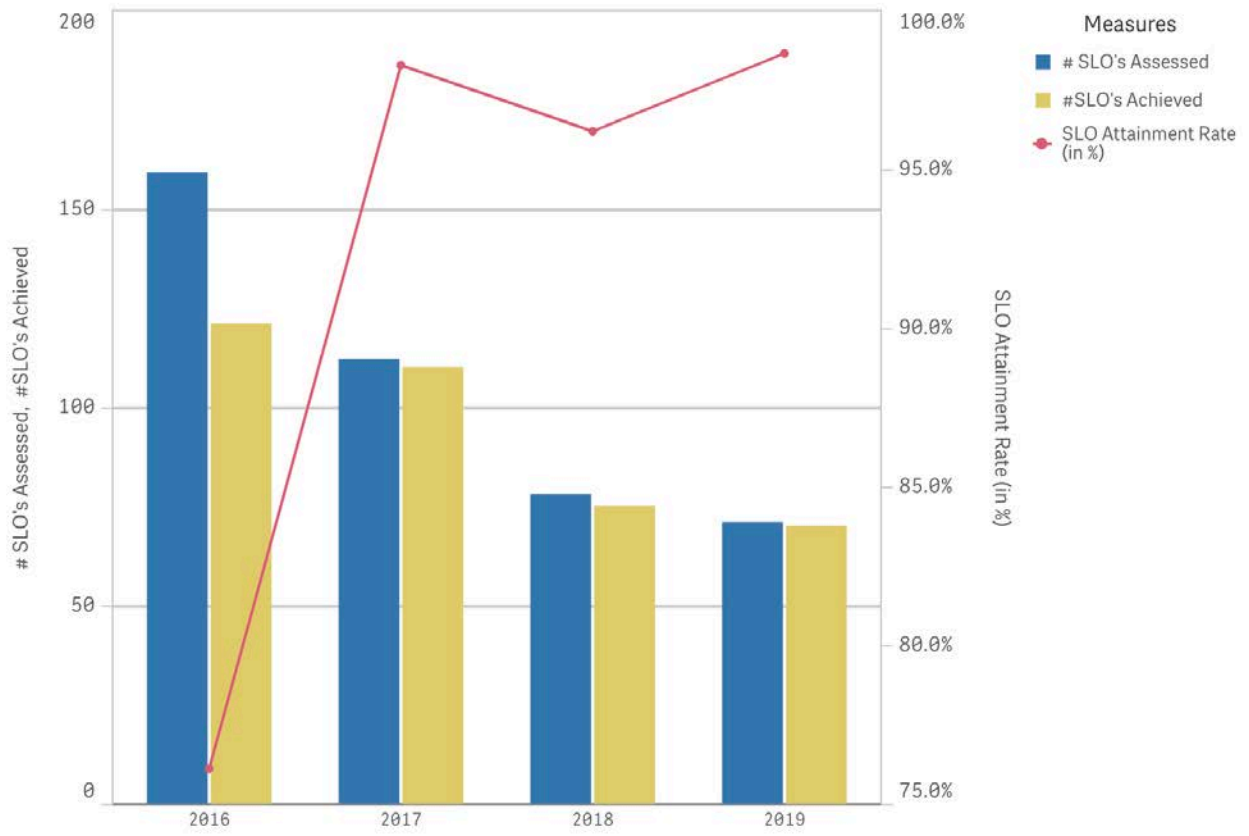
### **B. Student Learning Outcome Assessment**

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. By contract, faculty are required to measure at least one SLO for every class taught each semester. Automotive faculty will begin formally assessing previous course SLO data to close the loop on this. This data will be provided by the CTE division chair to help make improvements as courses are offered based on student learning outcome achievements.

### **SLO Data**

**Academic Years 2016-17, 2017-18, 2018-19, 2019-20**

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



**Student Learning Outcomes (SLO's) by Course and Academic Year**

<b>Course</b>	<b>Academic Year</b>	<b># Assessed</b>	<b>Achieved</b>	<b>% Attained</b>
AT-49	2018	1	1	100%
AT-50	<i>Course Totals</i>	22	19	86%
	2016	11	8	73%
	2018	0	0	-
	2019	11	11	100%
AT-54	<i>Course Totals</i>	32	25	78%
	2016	22	15	68%
	2018	10	10	100%
	<i>Course Totals</i>	23	20	87%
AT-56	2016	15	12	80%
	2018	8	8	100%
	<i>Course Totals</i>	8	8	100%
	2017	8	8	100%
AT-58	2019	0	0	-
	<i>Course Totals</i>	6	6	100%
	2017	6	6	100%
	2019	0	0	-
AT-60	<i>Course Totals</i>	15	14	93%
	2016	8	7	88%
	2018	7	7	100%
	<i>Course Totals</i>	26	24	92%
AT-64	2017	14	12	86%
	2019	12	12	100%
	<i>Course Totals</i>	30	30	100%
	2017	17	17	100%
AT-66	2019	13	13	100%
	<i>Course Totals</i>	75	68	91%
	2016	29	22	76%
	2017	32	32	100%
AT-68	2018	7	7	100%
	2019	7	7	100%
	<i>Course Totals</i>	29	26	90%
	2016	21	19	90%
AT-70	2018	8	7	88%
	<i>Course Totals</i>	21	20	95%
	2016	12	12	100%
	2018	9	8	89%
AT-72	<i>Course Totals</i>	28	26	93%
	2016	16	14	88%
	2018	12	12	100%
	<i>Course Totals</i>	24	23	96%
AT-74	2016	6	5	83%
	2017	11	11	100%
	2018	7	7	100%
	<i>Course Totals</i>	23	21	91%
AT-76	2016	9	7	78%
	2017	6	6	100%
	2019	8	8	100%
	<i>Course Totals</i>	9	8	89%
AT-78	2017	5	5	100%
	2018	4	3	75%
	2019	0	0	-
	<i>Course Totals</i>	23	21	91%
AT-82	2017	13	13	100%
AT-84	<i>Course Totals</i>	9	5	56%
	2016	4	0	0%
	2018	5	5	100%
	2019	6	0	0%
AT-88	2016	6	0	0%
AT-90	<i>Course Totals</i>	20	19	95%
	2018	0	0	-
	2019	20	19	95%
	2018	0	0	-
AT-90A	2018	0	0	-

**Student Learning Outcomes (SLO's) by Modality**

Modality	Measure	Academic Year				Modality Average	Modality Totals
		2019	2018	2017	2016		
Face-to-Face	% Attained	98.6%	96.1%	98.2%	76.1%	92.3%	
	Assessed	71	77	112	159		419
	Achieved	70	74	110	121		375
Hybrid	% Attained	-	100.0%	-	-	100.0%	
	Assessed	-	1	-	-		1
	Achieved	-	1	-	-		1

All Modalities	Measure	Academic Year				Grand Total Average	Grand Totals
		2019	2018	2017	2016		
	% Attained	98.6%	98.1%	98.2%	76.1%	92.7%	
	Assessed	71	78	112	159		420
	Achieved	70	75	110	121		376

**Description/Evaluation:**

**Planning Agenda:**

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

**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 F, Student Survey).

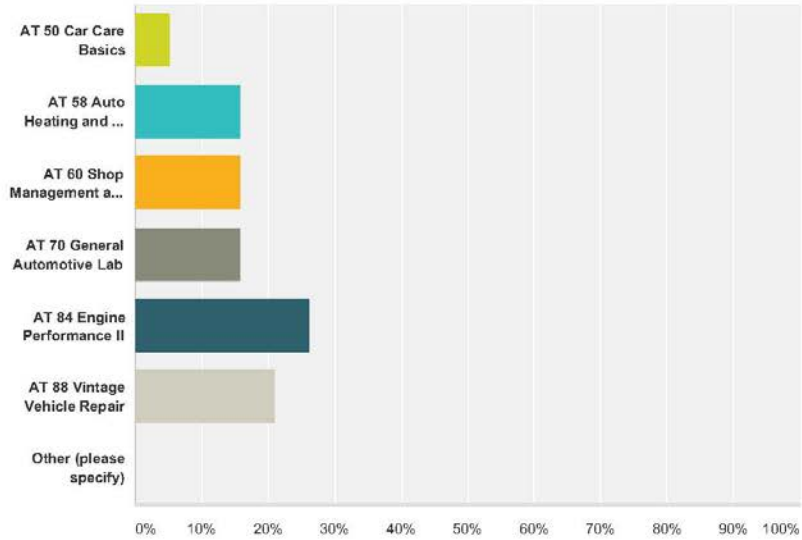
**Description/Evaluation:**

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.)

Auto Technology Instructional Program Review 2016

**Q1 Which course in this program are you reviewing?**

Answered: 19 Skipped: 1



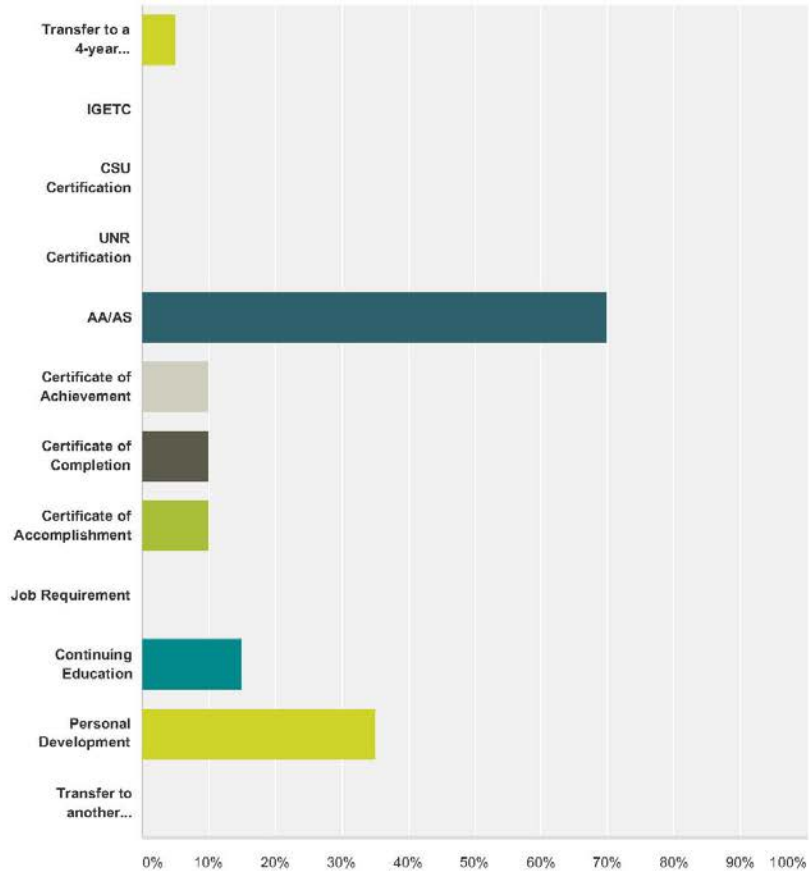
Answer Choices	Responses
AT 50 Car Care Basics	5.26% 1
AT 58 Auto Heating and Air Conditioning	15.79% 3
AT 60 Shop Management and Writing	15.79% 3
AT 70 General Automotive Lab	15.79% 3
AT 84 Engine Performance II	26.32% 5
AT 88 Vintage Vehicle Repair	21.05% 4
Other (please specify)	0.00% 0
<b>Total</b>	<b>19</b>

#	Other (please specify)	Date
	There are no responses.	

**Q2 Educational Goal: What is your educational objective at Lassen Community College. (Check all that apply).**

Answered: 20 Skipped: 0

### Auto Technology Instructional Program Review 2016



Answer Choices	Responses
Transfer to a 4-year Institution	5.00% 1
IGETC	0.00% 0
CSU Certification	0.00% 0
UNR Certification	0.00% 0
AA/AS	70.00% 14
Certificate of Achievement	10.00% 2
Certificate of Completion	10.00% 2
Certificate of Accomplishment	10.00% 2
Job Requirement	0.00% 0
Continuing Education	15.00% 3
Personal Development	35.00% 7

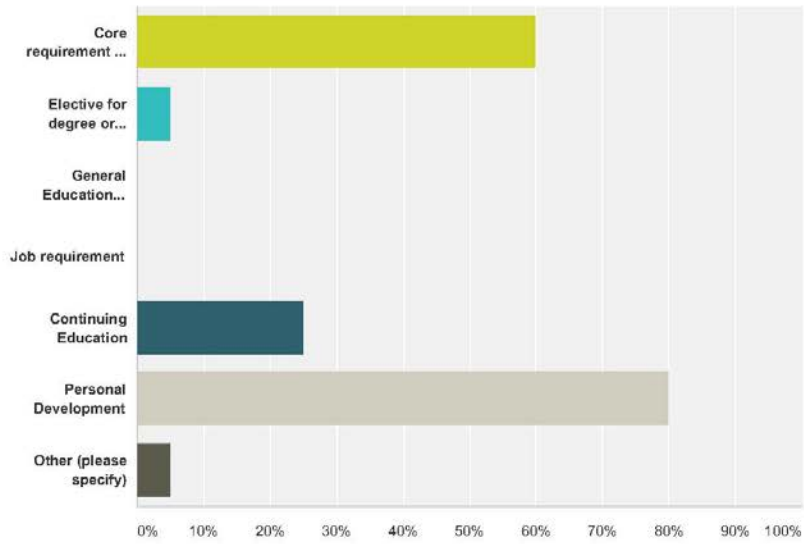
Auto Technology Instructional Program Review 2016

Transfer to another community college	0.00%	0
<b>Total Respondents: 20</b>		

#	Title of degree or certificate:	Date
1	AS Degree in Automotive Technology	5/13/2016 9:51 PM
2	AS Degree in Automotive Technology	5/13/2016 9:50 PM
3	Automotive technology	5/12/2016 5:21 PM
4	Automotive Technology	5/11/2016 2:56 PM
5	AS Degree in Automotive Technology	5/10/2016 11:09 AM

Q3 Why are you taking this course?

Answered: 20 Skipped: 0



Answer Choices	Responses
Core requirement for degree or certificate	60.00% 12
Elective for degree or certificate	5.00% 1
General Education course for degree or transfer	0.00% 0
Job requirement	0.00% 0
Continuing Education	25.00% 5
Personal Development	80.00% 16
Other (please specify)	5.00% 1
<b>Total Respondents: 20</b>	

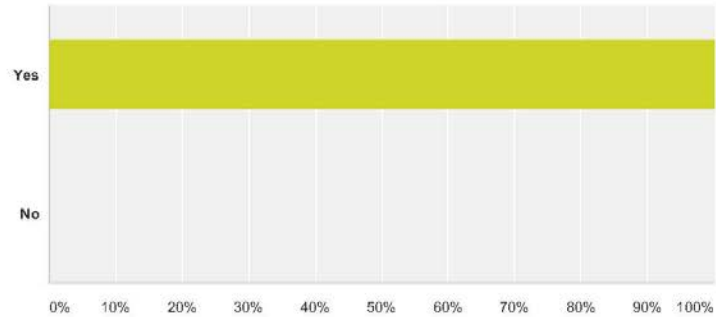


Auto Technology Instructional Program Review 2016

#	Other (please specify)	Date
1	For mechanical skills	5/14/2016 11:58 AM

**Q4 Does the course content reasonably compare with the catalog/schedule description?**

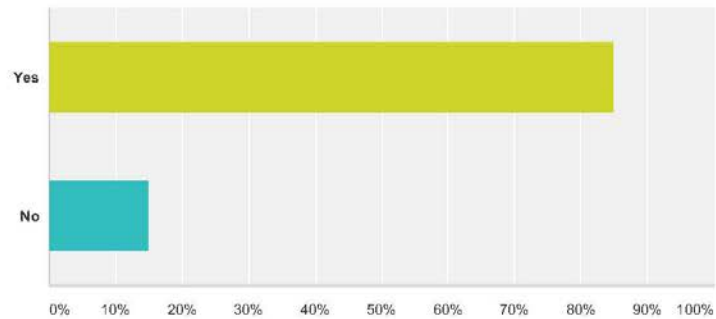
Answered: 20 Skipped: 0



Answer Choices	Responses	Count
Yes	100.00%	20
No	0.00%	0
<b>Total</b>		<b>20</b>

**Q5 Did the catalog clearly explain the order in which the courses in this program should be taken?**

Answered: 20 Skipped: 0



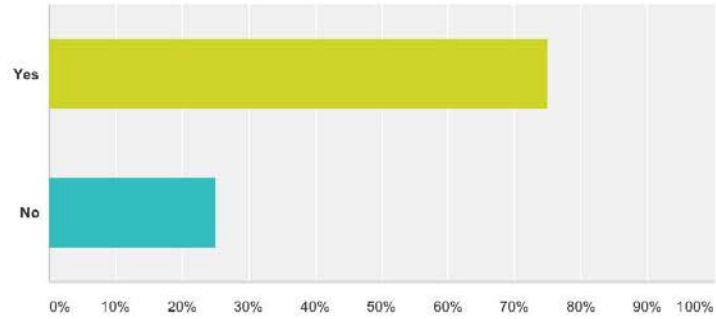
Answer Choices	Responses	Count
Yes	85.00%	17

Auto Technology Instructional Program Review 2016

No	15.00%	3
<b>Total</b>		<b>20</b>

**Q6 Was any cost for this course/program, beyond registration and books clearly identified in the catalog?**

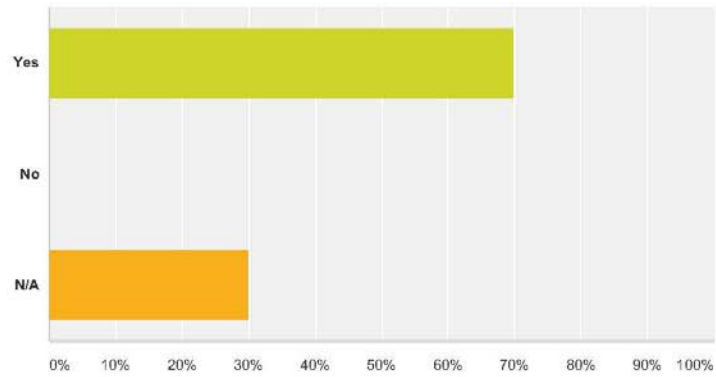
Answered: 20 Skipped: 0



Answer Choices	Responses
Yes	75.00% 15
No	25.00% 5
<b>Total</b>	<b>20</b>

**Q7 Did instructors use the required textbooks in the course?**

Answered: 20 Skipped: 0



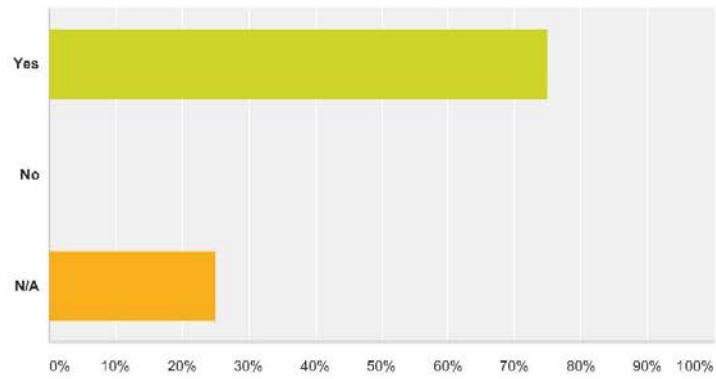
Answer Choices	Responses
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Auto Technology Instructional Program Review 2016

Yes	70.00%	14
No	0.00%	0
N/A	30.00%	6
<b>Total</b>		<b>20</b>

**Q8 Are the textbooks purchased for this course useful to you?**

Answered: 20 Skipped: 0

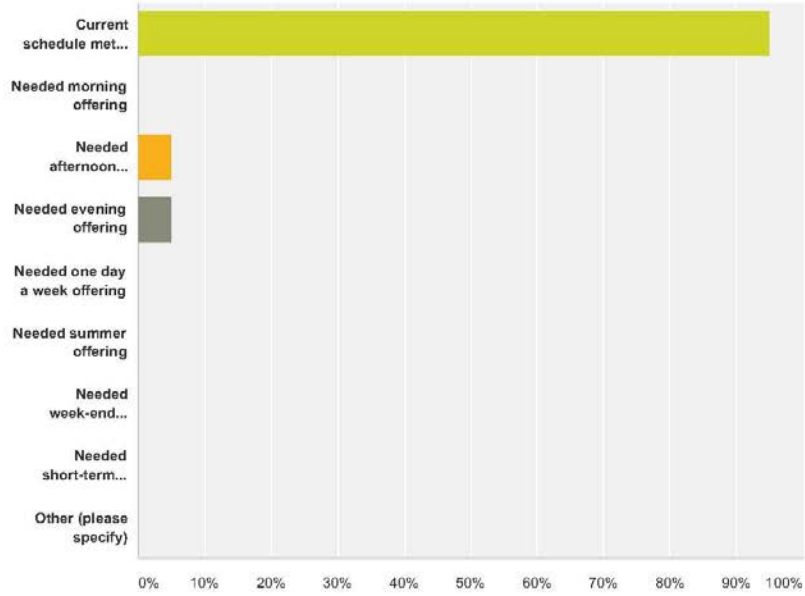


Answer Choices	Responses	Count
Yes	75.00%	15
No	0.00%	0
N/A	25.00%	5
<b>Total</b>		<b>20</b>

**Q9 Did the scheduling for this course meet your needs?**

Answered: 20 Skipped: 0

Auto Technology Instructional Program Review 2016



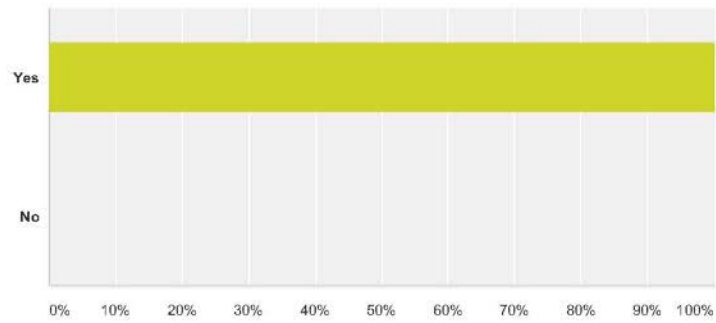
Answer Choices	Responses
Current schedule met my needs	95.00% 19
Needed morning offering	0.00% 0
Needed afternoon offering	5.00% 1
Needed evening offering	5.00% 1
Needed one day a week offering	0.00% 0
Needed summer offering	0.00% 0
Needed week-end offering	0.00% 0
Needed short-term (less than semester) offering	0.00% 0
Other (please specify)	0.00% 0
<b>Total Respondents: 20</b>	

#	Other (please specify)	Date
	There are no responses.	

**Q10 I was provided with reasonable access to the facilities**

Answered: 20 Skipped: 0

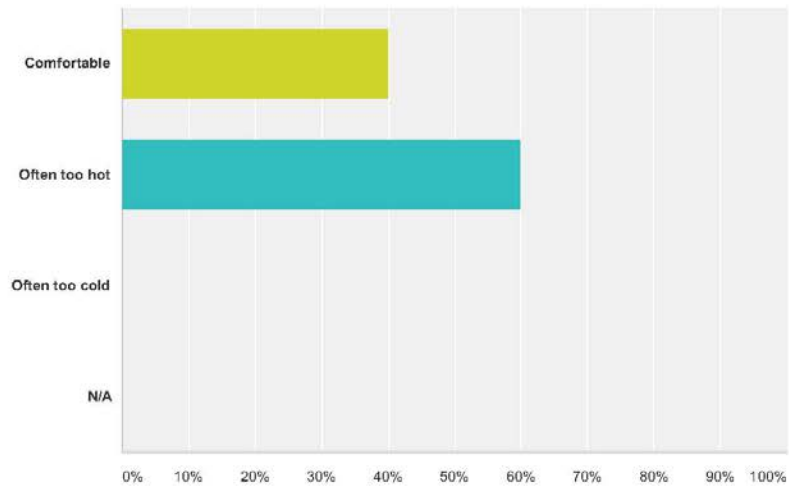
Auto Technology Instructional Program Review 2016



Answer Choices	Responses	
Yes	100.00%	20
No	0.00%	0
<b>Total</b>		<b>20</b>

Q11 When weather is hot outside, the facilities are:

Answered: 20 Skipped: 0



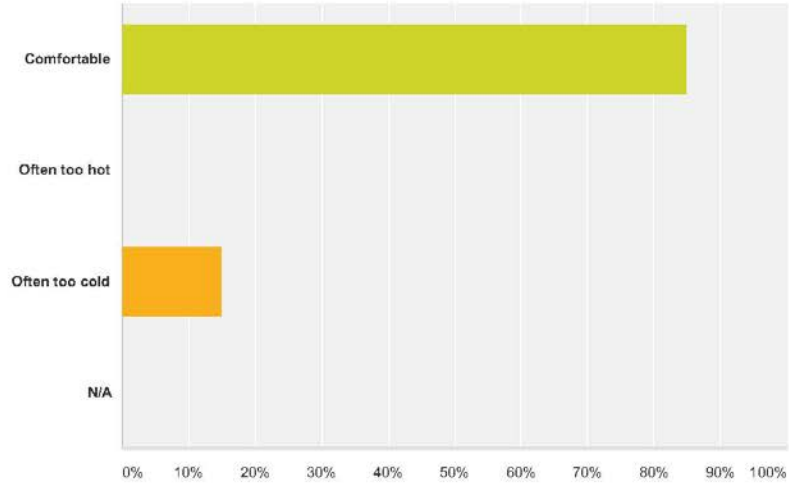
Answer Choices	Responses	
Comfortable	40.00%	8
Often too hot	60.00%	12
Often too cold	0.00%	0
N/A	0.00%	0

Auto Technology Instructional Program Review 2016

Total	20
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**Q12 When weather is cold outside, the facilities are:**

Answered: 20 Skipped: 0

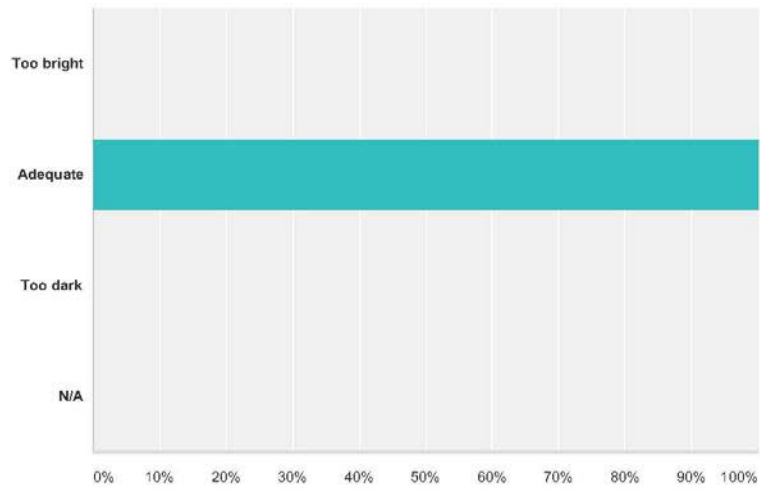


Answer Choices	Responses	
Comfortable	85.00%	17
Often too hot	0.00%	0
Often too cold	15.00%	3
N/A	0.00%	0
<b>Total</b>		<b>20</b>

**Q13 The lighting of the facilities are**

Answered: 20 Skipped: 0

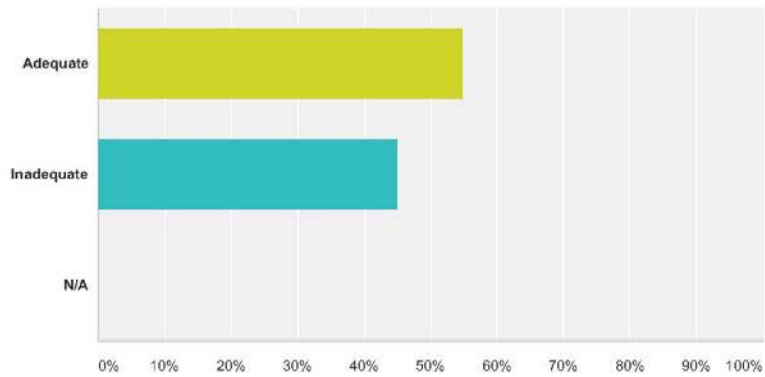
### Auto Technology Instructional Program Review 2016



Answer Choices	Responses	Count
Too bright	0.00%	0
Adequate	100.00%	20
Too dark	0.00%	0
N/A	0.00%	0
<b>Total</b>		<b>20</b>

### Q14 The chairs/tables/desks are

Answered: 20 Skipped: 0



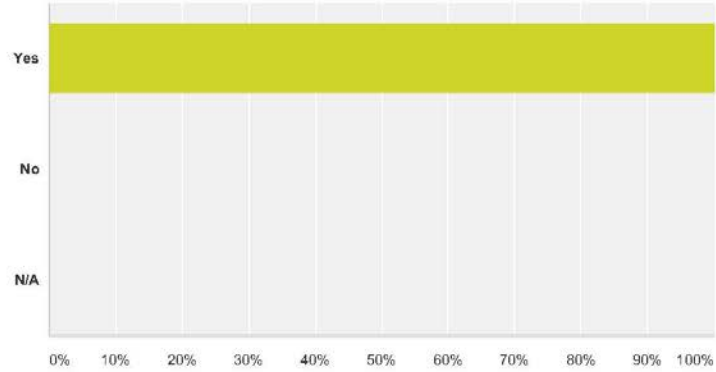
Answer Choices	Responses	Count
Adequate	55.00%	11

Auto Technology Instructional Program Review 2016

Inadequate	45.00%	9
N/A	0.00%	0
<b>Total</b>		<b>20</b>

**Q15 Is there enough space for you to do your work in class?**

Answered: 20 Skipped: 0



Answer Choices	Responses	
Yes	100.00%	20
No	0.00%	0
N/A	0.00%	0
<b>Total</b>		<b>20</b>

**Q16 Please elaborate on your responses and include any additional facilities-related comments:**

Answered: 13 Skipped: 7

#	Responses	Date
1	No changes.	5/14/2016 8:16 PM
2	Large people cannot for comfortably in decks.	5/14/2016 7:35 AM
3	There needs to be more coolant/ oils for dominations.	5/13/2016 10:30 PM
4	The air conditioning is lacking. It gets awfully hot in the summer.	5/13/2016 9:13 PM
5	The air conditioning in the building is lacking. It can get awfully warm in the summer.	5/13/2016 9:11 PM
6	We need real adult tables and chairs	5/12/2016 5:23 PM
7	Air conditioning is need and we need better chairs and tables instead of desks	5/11/2016 3:06 PM
8	We need air conditioning and better seats	5/11/2016 3:02 PM

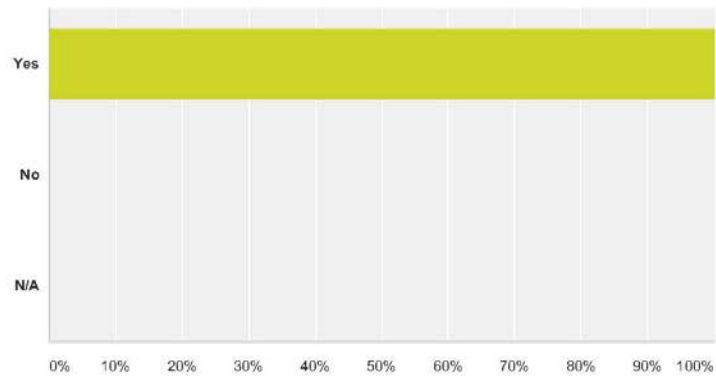


### Auto Technology Instructional Program Review 2016

9	We need real adult tables and chairs	5/11/2016 3:00 PM
10	Air conditioning is needed and better more comfortable chairs and desks or tables	5/11/2016 3:00 PM
11	Need better desks or tables instead, current ones are extremely uncomfortable and we need air conditioning	5/11/2016 2:56 PM
12	We need better "desks" or tables and better air conditioning in the shop	5/11/2016 2:53 PM
13	It needs more oil, and or coolant for more dominations.	5/10/2016 5:57 PM

### Q17 Did the course/program provide the necessary equipment?

Answered: 20 Skipped: 0

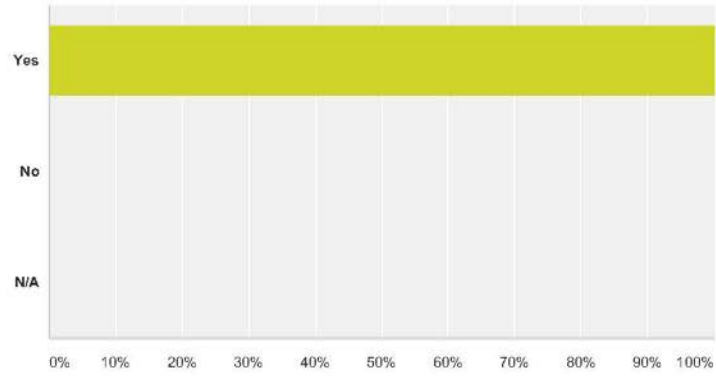


Answer Choices	Responses	Count
Yes	100.00%	20
No	0.00%	0
N/A	0.00%	0
<b>Total</b>		<b>20</b>

### Q18 Is enough time on equipment allowed for each student?

Answered: 20 Skipped: 0

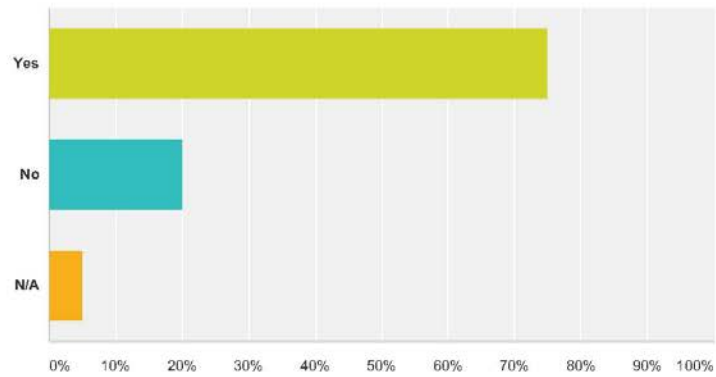
Auto Technology Instructional Program Review 2016



Answer Choices	Responses	Count
Yes	100.00%	20
No	0.00%	0
N/A	0.00%	0
<b>Total</b>		<b>20</b>

Q19 Is equipment current?

Answered: 20 Skipped: 0



Answer Choices	Responses	Count
Yes	75.00%	15
No	20.00%	4
N/A	5.00%	1
<b>Total</b>		<b>20</b>

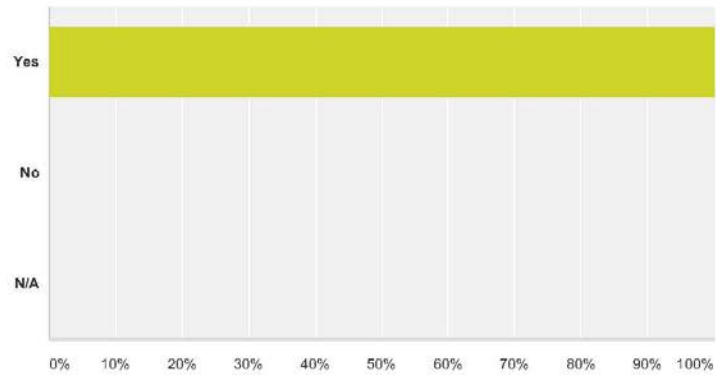
Q20 Is equipment generally in good

13 / 15

Auto Technology Instructional Program Review 2016

**operating condition?**

Answered: 20 Skipped: 0



Answer Choices	Responses	
Yes	100.00%	20
No	0.00%	0
N/A	0.00%	0
<b>Total</b>		<b>20</b>

**Q21 Describe how this course/program could be improved to better meet the needs of the student at Lassen Community College.**

Answered: 8 Skipped: 12

#	Responses	Date
1	No changes.	5/14/2016 8:16 PM
2	It needs a better air conditioner for the summer, because it gets to hot in the shop.	5/13/2016 10:30 PM
3	Tables and chairs	5/12/2016 5:23 PM
4	Need updated equipment	5/11/2016 3:06 PM
5	We need updated equipment	5/11/2016 3:02 PM
6	There is alot of new equipment, there could always be more.	5/11/2016 3:00 PM
7	We need updated equipment	5/11/2016 3:00 PM
8	We need more updated equipment	5/11/2016 2:53 PM

**Q22 Provide any additional comments on the course or program:**

Answered: 4 Skipped: 16

Auto Technology Instructional Program Review 2016

#	Responses	Date
1	No changes.	5/14/2016 8:16 PM
2	Mr. Lewis has been a great instructor. He is very thorough and I really appreciate the time he spends with us sharing his knowledge and experience. I often recommend his course to friends and family.	5/13/2016 10:36 PM
3	Get AC in the building and get rid of the gradeschool desks.	5/11/2016 3:00 PM
4	The course is amazing, it has taught me more then what I was expecting.	5/10/2016 5:57 PM

## Planning Agenda:

- #6 Provide A/C in the classroom, instructor's office and tool room.
- #7 Provide two portable evaporative coolers for the shop.
- #8 Provide tables and chairs to replace desks in the classroom.
- #9 Equipment is outdated. This will be listed in section IV of the IPR.

### III. Curriculum

#### A. Degrees and/or Certificates

##### Description/Evaluation:

- The Automotive Technology student can earn a variety of degrees and certificates. They are listed below along with the two-year plan for each.

## **AUTOMOTIVE TECHNOLOGY**

### **Associate in Science Degree**

#### **Automotive Technology**

Required Core Courses: 39 units

Total Units: 60 units

<b>Course Number</b>	<b>Course Title</b>	<b>Fall</b>	<b>Spring</b>
AT 50	Car Care Basics	3	
AT 54	Brakes	3(odd)	3(odd)
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
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(even)	3(even)
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**

### **Engine Repair**

Required Core Courses: 17 units

Total Units: 17 units

<b>Course Number</b>	<b>Course Title</b>	<b>Fall</b>	<b>Spring</b>
AT 50	Car Care Basics	3	
AT 58	Automotive Heating and Air Conditioning		3(odd)
AT 60	Shop Management and Service Writer		2(odd)
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)	

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

## **AUTOMOTIVE TECHNOLOGY**

### **Certificate of Achievement – Advanced Mechanics**

#### **Automotive Technology**

<b>Course Number</b>	<b>Course Title</b>	<b>Fall</b>	<b>Spring</b>
AT 50	Car Care Basics	3	
AT 54	Brakes	3(odd)	3(odd)
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	
AT 68	Automatic Transmissions		3(odd)
AT 70	General Automotive Lab	2	2

Required Core Courses: 23 units

Total Units: 23 units

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

## **AUTOMOTIVE TECHNOLOGY**

### **Certificate of Achievement – Basic Mechanics**

#### **Automotive Technology**

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

**Required Core Courses:** 12 units **Total Units:** 12 units  
See a counselor to prepare your educational plan with the latest scheduling information.

## **AUTOMOTIVE TECHNOLOGY**

### **Certificate of Accomplishment - Electrical**

#### **Automotive Technology**

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

**Required Core Courses:** 12 units **Total Units:** 12 units  
See a counselor to prepare your educational plan with the latest scheduling information.

- The automotive technology program, degree and certificate learning outcomes are reviewed when curriculum is reviewed. They are also reviewed by the advisory committee periodically.
- There is the need for a few new courses and certificates in the auto program. The facility 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.
- Career/Technical programs: Attach dates of Advisory Committee meetings (a minimum of two 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
- Recent automotive advisory board meetings were held on 3-17-2016, 2-20-2015, and 5-29-2013, 12-7-2018, 5-17-2019, 2-3-2020, and 3-19-2021. Brief e-mail meetings were also held. The meeting minutes for all meetings

referenced curriculum review and new course ideas. The most recent meeting was where the idea of inactivating the AT 64 Diesel Repair and Maintenance, AT 76 Automotive Machining Lab, and AT 88 Vintage Vehicle Repair was brought up. The diesel course will likely be brought back after we acquire a suitable diesel vehicle to work on and the curriculum is updated with advisory board input. The other two courses, the advisory board felt, were duplications of other courses and resulted in students taking more course units than needed. The need for hybrid and electric vehicle courses were talked about as well. Both of these courses are being planned and the curriculum will be written after faculty are properly trained and needed tools and equipment are bought or acquired through the donation process. The current and previous automotive advisory board is listed below.

• **Automotive Program Advisory Committee**

**2020/2021 Academic Years**

<b>Individual</b>	<b>Company or Agency</b>	<b>Membership Qualification</b>	<b>Contact Information</b>
Dr. Trevor Albertson	LCC President/Superintendent	Non-Voting	530-251-8820 talbertson@lassencollege.edu
CTE Dean Roxanna Haynes	LCC	Non-Voting	530-251-8839 rhaynes@lassencollege.edu
J.R. Thompson	Hy-Tech Auto  Owner	Voting	530-386-5519 jr@mtlassenloghomes.com
Bob Dowd	Lithia Reno Subaru  Parts Manager	Voting	775-233-4848 rdowd@lithia.com
Fran Oberg	LCC  Executive Assistant	Non-voting	530-257-6181X8891 foberg@lassencollege.edu
Lisa Gardiner	LCC	Non-voting	530-251-8856 lgardiner@lassencollege.edu

Lassen Community College Automotive Technology Program Review 2018 and 2020 5/13/2021



	Work Experience Coordinator		
Chris Johnson	Susanville Ford General Manager	Voting	888-562-9989x502 cjohnson@susanvilleautocenter.com
Chrissy Adams	Alliance For Workforce Development  Career Advisor	Voting	530-257-5057 cadams@ncen.org
Scott Purdy	Les Schwab Tires  Manager	Voting	530-816-0595 Scott.j.purdy@lesschwab.com
Terry Jackson	Jackson's Service Center  Owner	Voting	530-257-5309
Jeff Oliver	LCC  Automotive Adjunct Instructor	Voting	530-251-8812 joliver@lassencollege.edu
Orrin Casteel	LCC Automotive Adjunct Instructor	Voting	530-251-8812 ocasteel@lassencollege.edu
Christy Rose	K-12 SWP Coordinator	Voting	530-251-1159 Christy.Rose@lassenhigh.org

## Automotive Technology Advisory Committee

2018/2019 Academic Years

<b>Individual</b>	<b>Company or Agency</b>	<b>Membership Qualification</b>	<b>Contact Information</b>
Dr. Marlon Hall	LCC President/Superintendent	Non-Voting	530-251-8820 mhall@lassencollege.edu
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J.R. Thompson	Hy-Tech Auto  Owner	Voting	530-386-5519 jr@mtlassenloghomes.com
Bob Dowd	Lithia Reno Subaru  Parts Manager	Voting	775-233-4848 rdowd@lithia.com
Fran Oberg	LCC  Executive Assistant	Non-voting	530-257-6181X8891 foberg@lassencollege.edu
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Tom Brown	LMUD	Voting	530-257-6937 tbrown@lmud.org

	Vehicle Maintenance Supervisor		
Scott Purdy	Les Schwab Tires  Manager	Voting	530-816-0595  Scott.j.purdy@lesschwab.com
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Terry Jackson	Jackson's Service Center  Owner	Voting	530-257-5309
Jeff Oliver	LCC  Automotive Adjunct Instructor	Voting	530-251-8812  joliver@lassencollege.edu

- 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?**

According to the Bureau of Labor Statistics Occupational Outlook Handbook, many employers require automotive technicians to become ASE (National Institute for Automotive Service Excellence) certified. ASE certification is available in nine different automobile specialty areas: automatic transmission/transaxle, brakes, light vehicle diesel engines, electrical/electronic systems, engine performance, engine repair, heating and air-conditioning, manual drive train and axles, and suspension and steering. The automotive technology program offers courses in all of these areas. ASE certification preparation is covered in all courses as well.

The Lassen College automotive program is also a Subaru-U and Ford ACE approved training center. These provide dealer training opportunities for students to take advantage of as well. The general manager from our local Ford dealer and the service manager are both members of our advisory board as well. Their input definitely helps drive current employer skill requirements.

### Planning Agenda:

#10 Review degree and certificate learning outcomes at future advisory board meetings to verify industry needs are being met.

#11 Develop curriculums for emission courses, electric vehicle (EV) and hybrid vehicle course.

## B. Courses

### Description/Evaluation

1. AT 64 Diesel Repair and Maintenance, AT 76 Automotive Machining Lab, and AT 88 Vintage Vehicle Repair have all been inactivated from the instructional program since the last instructional program review. There is interest in industry in updating and bringing back the Diesel course and writing curriculum for hybrid and electric vehicle repair.
2. Each course offered within the instructional program has to be reviewed for accuracy and currency. Please see form in appendix D.

### Planning Agenda:

#12 Continue to update course outlines as needed and add new courses as dictated by the advisory board.

## 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 course qualifies to articulate to any UC or CSU.

### Planning Agenda:

No action required.

### III. Scheduling and Enrollment Patterns

#### Description/Evaluation:

1. All auto courses have been scheduled according to the two-year plan with the exception of AT 80 Basic Electrical, AT 82 Engine Performance I, and AT 84 Engine Performance II. The reason they have deviated from the two-year plan is because they need to be taken in order and since there are only three courses, it is impossible for them to fall into the two-year plan. We also 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. The data for time of day FTES is a bit skewed because more courses are scheduled more often in the evening. The reason for this is more auto students are available in the evening. Also, courses scheduled during the day often compete with general education courses. The data does show that there are more FTES in the evening. Classes for the high school cohort are offered in the morning to fit with the high school schedule. If additional sections are needed these are scheduled to best accommodate student needs.
3. 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.

### Planning Agenda:

#13 Continue to schedule auto courses according to student input and data to meet their needs.

### IV. Equipment

#### Description/Evaluation:

1. 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 refrigerant is now used so new A/C service equipment was purchased to keep up with technology. The needed equipment list includes tools and equipment that has been purchased since the last IPR and are the pieces listed with no prices.
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

Dept	Fiscal Year	Grant	Items
Auto	16/17	Perkins	Wheel Alignment Machine
	16/17	SWP	Smog Machine & Air Kit
	17/18	Perkins	Versus Edge Workstation
	17/18	Perkins	Welder and accessories
	17/18	Perkins & SWP	Diagnostic thermal imager
	17/18	SWP	Circuit Tester
	18/19	Perkins	Multiport fuel injection trainer

	18/19	Perkins & SWP	AC machine
	18/19	Perkins	Smog machine computer
	18/19	SWP	Versus Edge USB upgrade
	18/19	SWP	S/P2 subscription
	18/19	SWP	Meter Certificate kit, battery start charge, wireless battery system
	18/19	SWP	NATEF/ASE visit (paid for Edgardo Rapalo)
	19/20	Perkins	Subaru scan tool computer
	19/20	Perkins	VERUS Edge Diagnostic unit
	19/20	Perkins	Bar 97 zero air, smog calibration
	19/20	Perkins	voice amp and mic for Canvas
	19/20	SWP	Compressed air dryer
	19/20	SWP	Solstice refrigerant
	19/20	SWP	new lighting for classroom and shop area
	19/20	SWP	level from Grainger
	19/20	SWP	S/P2 subscription
	19/20	SWP	Germicidal cabinet for eyewear
	20/21	SWP	Dual enrollment textbooks
	20/21	SWP	Mitchell 1 renewal
	20/21	SWP	(20) piece tool and socket set
	20/21	SWP	protective eyewear

Large TV to mount on the wall to screen share while in the shop	\$10,000

Waste oil drain tank	\$250
R134 A/C Machine for Hybrid Vehicles	\$4,300
#MMP-210 --- Magnetic Crack Detector	\$850
Manual Valve Spring Bench # CF-500	\$2,000
#HF-1000KIT --- Bench Top Valve Guide Finish Station	\$1,400
#BHF-KIT --- Black Diamond Hyper Finish Sizing Kit	\$2,000
Split Ball Bore Gauge # MVG-64	\$800.00
Steam Cleaner	\$4,700
Bench Brake Lathe	\$11,000
Plasma Cutter	\$1,850
Engine Head and Cylinder Surfacers and boring machine	\$50,000
Van Norman 180000 XLX CRANKSHAFT BALANCER (220/1/60)	\$30,000

- 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 in order of importance.

The oil drain tank is needed to drain cooling systems while the vehicle is on the lift.

We have various workstations with monitors we need a large screen to share. The workstation monitors are too small for this.



A separate R134 A/C machine is required to service hybrid vehicles. The flush machine for R1234 vehicles is required for servicing systems.

The magnetic crack detector is to replace a broken old model. The bench top valve guide finish station, black diamond finish sizing kit, manual valve spring bench, and split ball bore gauge are a cylinder head tools needed to machine modern aluminum cylinder heads for our engine rebuilding classes.

The steam cleaner needs to be replaced because of wear and age of our current machine. This was on the last program review and was never funded.

Our current bench brake lathe is about 30 years old and lacks the correct adaptors to machine current vehicle brake rotors.

The plasma cutter is needed to replace a broken machine. We use this on occasion for exhaust repair and while modifying vehicles donated to the program when it is necessary to cut metal to make demonstrations and vehicle mock up possible.

Finally, the surfacers is needed to replace a unit that is about 40 years old. Our current unit has a tank for coolant that is nearly rusted thru. The part set up tooling is worn and obsolete by today's standards making it difficult to machine many engines. Our current engine boring machine is also aged and they have a machine that will perform both surfacing and boring operations. The crankshaft balancer we have has a failed computer board that failed during the last engine rebuilding class and parts are no longer available.

#### Planning Agenda:

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

**#13 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.

The automotive program is certified by the California State Bureau of Automotive Repair (BAR) to teach ASE alternative courses so students can qualify to take the BAR smog inspector test to earn a smog inspector license. The program is also certified to teach smog inspector update courses as required by BAR, and citation courses required by smog technicians that have received a citation. The program is required to maintain certain tools and equipment in order to remain licensed by the BAR to teach these courses. Any tools and equipment required are listed previously in this review.

The auto program has achieved ASE Education Foundation accreditation. The cost to maintain the accreditation will be about \$2,500 every 5 years for the re-certification process.

Vehicle repair information is provided by subscriptions to ShopKeyPro and AllData. These are required by ASE Education Foundation, California Bureau of Automotive Repair and for student reference to diagnose and repair vehicles. The cost is about \$1,600 a year for ShopKey and \$1,900 for AllData per year. We cannot function without these subscriptions.

### 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.

#14 Fund ASE Education Foundation re-certification process as needed.

#15 Fund AllData and ShopKey subscriptions annually.

#16 Fund equipment purchases as funds are available.

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.

## VI. Prioritized Recommendations

### A. Prioritized Recommendations for Implementation by Program Staff

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

#1 A review of the programs mission and goals will be done at the next advisory meeting.

#2 Program SLO's will be reviewed at the next advisory board meeting.

#4 Work with area high schools to recruit students and continue to offer courses for the high school students.

#5 Continue using lab activities to assess SLO's.

#10 Review degree and certificate learning outcomes at future advisory board meetings.

#11 Develop curriculums for emission courses, hybrid and electric vehicle courses.

#12 Continue to update course outlines as needed.

#13 Continue to schedule auto courses according to student input to meet their needs.

### 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 Appendix C for Master Plan Overview to determine where recommendations are best placed.

### Prioritized Recommendations for Inclusion in Education Master Plan Program & Year (i.e. Automotive Technology 2021)

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost	Expected Outcome
3	More advertising and marketing needs to be created for	Immediately	Unknown. CTE programs should be	Increase enrollment

	the automotive program and all CTE programs.		included more in current advertising	
6	Provide A/C in the classroom, instructor's office, and tool room.	Fall 2021	\$2,500	Increase employee morale and provide a place that is a reasonable temperature to work
7	Provide two portable evaporative coolers for the shop.	Fall 2021	\$9,500	Increase student learning
8	Provide tables and chairs to replace desks in the classroom.	Fall 2021	\$5,000	Increase student learning
14	Purchase prioritized tool and equipment items as funding allows	Starting fall 2021	\$106,800	Comply with state and federal requirements. Increase student learning.
15	Fund ASE Education Foundation re-certification process	Spring 2024	\$2,500	Increase enrollment

**Prioritized Recommendation for Inclusion in Student Services Master Plan**

Program & Year (i.e. Automotive Technology 2021)

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost	Expected Outcome
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**Prioritized Recommendations for Inclusion in Institutional Effectiveness Master Plan**

Program & Year (i.e. Automotive Technology 2021)

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost	Expected Outcome
1,4	16 Fund large TV for screen sharing in the shop.	Fall 2021	\$10,000	Increase student learning

**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 by one full time faculty member, Chad Lewis, two adjunct faculty, Jeff Oliver and Orrin Cateel and 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 definitely benefits from having adjunct faculty to teach courses to maintain the 2 year rotation. This level of staffing seems adequate for now.

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.

#16 Maintain current staffing levels.

## 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 involved with various statewide Senate activities over the last several years. These include serving on the ASCCC CTE Leadership committee, the MQ for CTE taskforce and CPL taskforce. The full-time faculty member attended a variety of trainings and conferences. Chad has attended the following senate events:

December 9, 2016	North Far North Regional Consortium meeting
November 23, 2016	CTE Leadership Meeting
November 3-5, 2016	ASCCC Fall Plenary Session

October 26, 2016	CTE Leadership Meeting
September 27-29, 2016	CCCAOE Conference
September 16, 2016	CTE Leadership Meeting
June 8-11, 2016	Faculty Leadership Conference
May 5-7, 2016	CTE Leadership Conference
April 20-23, 2017	ASCCC Spring Plenary Session
March 11-12, 2020	CCCAOE Conference
February 5-7, 2020	NC3 Train-the-Trainer Event
September 22, 2019	CPL Meeting
November 1, 2019	Regional Curriculum Meeting
October 15-18, 2019	CCCAOE Conference
August 5-9, 2019	Subaru Instructor Training
April 4-5, 2019	CCCAOE Conference
April 26, 2019	CAT Conference
January 20-24, 2019	NC3 Train-the-Trainer
December 12, 2018	MQ Workgroup Meeting
October 23, 2018	CTE MQ Workgroup Meeting
July 9-12, 2019	Curriculum Institute
July 13-18, 2019	SEM Training

**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.

**#17 Continue attended 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.

None

### IV. Prioritized Recommendation

#### **Prioritized Recommendations for Implementation by Program Staff**

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

#### **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 **Appendix C** for Master Plan Overview to determine where recommendations are best placed.

[Click here to enter text.](#)

#### **Prioritized Recommendations for Inclusion in Human Recourse Master Plan**

Program & Year (i.e. Automotive Technology 2014)

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost	Expected Outcome
16	Maintain current staffing levels	Fall 2021	None	Continue to improve student learning



## Section Three: Facilities Planning

### I. Facilities

#### Description/Evaluation:

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

The auto shop is located on the south side of campus along with AG, and welding. The facilities are for the most part satisfactory. As noted in the student surveys, temperature during the warm season is excessive. The biggest problems with the facilities is parking and the gate leading to the fenced area for auto is too small.

There is a common parking area shared by AG, welding, and auto. Most days this is filled to capacity. Many days the faculty does not have a space to park in the lot near the shop.

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.

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

None

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

None

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

A/C needs to be added to the office and tool room 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.

The parking lot needs to expand to accommodate students and staff in multiple programs.

The gate leading to the auto parking area needs to be made larger to accommodate larger student vehicles and towing vehicles.

## 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.

#18 Expand parking lot for AG, welding, and auto.

#19 Widen gate to auto parking area

## II. Prioritized Recommendations

### Prioritized Recommendations for Implementation by Program Staff

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

None

### 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 Appendix C for Master Plan Overview to determine where recommendations are best placed.

### Prioritized Recommendations for Inclusion in the Facilities Master Plan

Program & Year (i.e. Automotive Technology 2014)

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost	Expected Outcome
6	Add A/C to the office and tool room areas	Fall 2021	\$1,000	Provide improved working conditions
7	Provide large evaporative coolers for the shop area	Spring 2021	\$9,500	Improve student learning
18	Expand parking lot for AG, welding, and auto.	Fall 2022	Unknown	Improve student learning. Increase enrollment

19	Widen gate to auto parking area	Fall 2021	\$7,000	Improve student vehicle access

## Section Four: Technology Planning

### I. Technology

#### Description/Evaluation:

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

The auto program does utilize several computers and printers. The program also uses a vehicle repair program. There are two main systems used in industry. One is called Mitchell and the other is ALLDATA. We have always used Mitchell in the past but switched recently to ALLDATA. Both programs should be used so students can get proficient with both systems.

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

The repair programs cost about \$1,800 per year each. Both programs should be funded.

#### 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.

#20 Fund both Mitchell and ALLDATA repair information systems annually.

### II. Prioritized Recommendations

#### Prioritized Recommendations for Implementation by Program Staff

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

**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 Appendix C for Master Plan Overview to determine where recommendations are best placed.

**Prioritized Recommendations Inclusion in Institutional Technology Master Plan**

Program & Year (i.e. Automotive Technology 2014)

Strategic Goal	Planning Agenda Item	Implementation Time Frame	Estimated Cost	Expected Outcome
20	Fund both Mitchell and ALLDATA repair information systems annually.	Fall 2021	\$3,500 per year	Improve student learning. Make auto students more employable.

**Appendix A:**

**Four-Column Model for Student Learning Outcomes**

(insert model here)

**Appendix B:**

**Institutional Student Learning Outcomes Inventory Chart**

(insert chart here)

(insert any promotional materials here)

**Appendix C:  
Promotional Materials**

**Appendix D:**  
**Curriculum Review Form**

Lassen Community College  
Status of Curriculum Reviews

**Automotive Technology Instructional Program**  
**Review Status of Curriculum Review March 23, 2021**

<b>Course Name</b>	<b>Curriculum Committee Review Completed</b>	<b>Curriculum Committee Review <u>Not</u> Completed</b>	<b>Course SLO mapping reviewed</b>
AT-50 Car care Basics	03/16/2021	<i>Date here if last review 4 years or more</i>	03/16/2021
AT-54 Brakes	03/16/2021		03/16/2021





Lassen Community College  
Status of Curriculum Reviews

Maintenance			
AT 151 Automotive Chassis System	03/16/2021		03/16/2021
Degrees & Certificates			Program PSLC mapping review
AS Automotive Technology	03/16/2021		03/16/2021
CA Engine Repair	03/16/2021		03/16/2021
CA Advance Mechanics	03/16/2021		03/16/2021
CA General Mechanics	12/01/2020 Inactivate		
COA Electrical	03/16/2021		03/16/2021



Chad Lewis, Subject Area Faculty Signature

4-15-2021

Date



Chad Lewis, Curriculum and Academic Standards Committee Chair Signature

4-15-2021

Date

Roxanna Haynes, Interim Dean of Instructional Services

Date

Roxanna Haynes

Digitally signed by Roxanna Haynes  
Date: 2021.04.20 08:34:36  
-07'00'

Program Review 2018 and 20202018 and 2020 5/13/2021

Lassen Community College Automotive Technology

## Appendix E: Tables