

2022-2023 Comprehensive Instructional Program Review - AUTO Latest Version

2022-2023 Comprehensive Instructional Program Review

Program Overview and Goals

Mission and Alignment : Version by **Mulleary, Joe** on **04/11/2023 22:36**

The goal of the Automotive Technology department is to train the next generation of automotive technicians in bumper-to-bumper repair. **Our department has several partnerships with automotive manufacturers, local independent repair facilities and fleets.**

Explain how your program supports the College's Mission.

Our Automotive Technology program supports the college's mission of offering comprehensive instructional programs where students gain the knowledge and skills to be productive members of society.

Degrees and Certificates : Version by **Mulleary, Joe** on **05/13/2023 14:30**

List the degrees and certificates the program offers as well as the number of units or courses required to complete the program.

1. Automotive Drivetrain & Air Conditioning - CT
2. Automotive Electrical & Engine Performance Technician - CT
3. Automotive Heavy Line & Chassis Technician - CT
4. Emissions Essentials Service Technician - CT
5. Entry Level Quick Service Technician - CT
6. Fleet Technician - CT
7. Industrial Vehicle Technician - CT
8. Intermediate Level Technician - CT
9. General Motors Essentials - CT
10. General Motors Advanced - CT
11. General Technician - CT & AA
12. Automotive Management - CT & AA
13. Alternative Fuels Service Technician - CT & AS
14. Electrical/Diagnosis Technician - CT & AA
15. Engine Machining Technology - CT & AS
16. Manufacture Specialty - CT & AA
17. General Motors Automotive Service Educational Program (GM ASEPE) - AS

Six-Year Program Goals : Version by **Mulleary, Joe** on **04/11/2023 22:36**

Program Goal	College's Goals Supported (Goal A - Goal F)	Status (not started; in progress; on hold; cancelled; completed; continued)	Action Plans/Timelines/Resource Needs
Increase enrollment	Goal A	in progress	The plan has been to focus on offering the General Technician courses both morning and night so students have a clearer path toward completion. We won't be able to fully implement this plan until Spring 2024 since we will have two new FT instructors starting in Fall 2023 but we will also be losing a FT instructor in May 2023.
Double completion rate	Goal A	not started	To do this we need to implement having a person visit each class in Auto and show students the petition process.
Start new GM ASEPE cohort annually	Goal B	not started	We will be hiring a new FT instructor but we won't be able to implement this goal until Fall 2024 at the earliest.
Start new Ford ASSET cohort annually	Goal B	not started	We will be hiring a 2nd new FT instructor but we won't be able to implement this goal until Spring 2024 at the earliest.

Assessment Report and Data Analysis

Assessment Report (Part 1: Assessment Table) : Version by **Mulleary, Joe** on **03/22/2023 04:29**

Course by SLO	Expected Performance	Performance
AUTO54 - Introduction To Electric Vehicle		
Students employ appropriate safety practices while conducting automobile service. (Active from 2013 FA)	100.00%	0.00%
Students compare advantages of Electric, Hybrid, and Gasoline (internal combustion) engines. (Active from 2013 FA)	100.00%	0.00%
Students describe the function of EV (electric vehicle) system components. (Active from 2013 FA)	100.00%	0.00%
Students evaluate the advanced charging systems. (Active from 2013 FA)	100.00%	0.00%
Students compare EV and Hybrid charging methods. (Active from 2013 FA)	100.00%	0.00%
Students demonstrate proper use of proper diagnostic tools. (Active from 2013 FA)	100.00%	0.00%
AUTO103 - Introduction to High Voltage Vehicles		
Diagnose and repair high voltage battery system concerns. (Active from 2018 FA)	100.00%	100.00%
Test the drive systems for proper operation. (Active from 2018 FA)	100.00%	100.00%
Diagnose and repair power electronics. (Active from 2018 FA)	100.00%	100.00%
Diagnose and repair hybrid supporting systems. Expected SLO (Active from 2018 FA)	100.00%	100.00%
AUTO55 - Advanced Technology Electric Vehicle		
Eighty percent (80%) of the completing students will have the ability to describe and apply the concepts of electrical energy production and how it operates the vehicle propulsion systems. (Active from 2018 SP)	100.00%	0.00%
AUTO55 - Advanced Technology Electric Vehicle		
Students will identify calculate electrical theory equations using Ohm's and Watts laws (Active from 2018 FA)	100.00%	0.00%
Students will identify high voltage components on electric vehicles (Active from 2018 FA)	100.00%	0.00%
Students will explain the difference between vehicle manufacturer high voltage systems (Active from 2018 FA)	100.00%	0.00%
AUTO100 - Automotive Maintenance and Operation		
Perform a thorough vehicle safety inspection. (Active from 2021 FA)	100.00%	92.94%
Perform basic preventative maintenance on a vehicle. (Active from 2021 FA)	100.00%	91.76%
Describe base engine components and the process of internal combustion. (Active from 2021 FA)	100.00%	89.41%
Explain the major concepts of electrical theory. (Active from 2021 FA)	100.00%	78.82%
Identify the braking system components. (Active from 2021 FA)	100.00%	90.59%
Explain the operation of the fuel and ignition systems. (Active from 2021 FA)	100.00%	81.18%
AUTO101 - Auto Service Tools & Equipment		
Use the appropriate personal protective equipment (Active from 2018 FA)	100.00%	42.86%
Identify the proper thread repair tool to repair damaged threads (Active from 2018 FA)	100.00%	42.86%
Identify the common automotive hand tools (Active from 2018 FA)	100.00%	42.86%
Explain the different types of sealers used in automotive service (Active from 2018 FA)	100.00%	42.86%
Differentiate between metric and standard fasteners (Active from 2018 FA)	100.00%	42.86%

Course by SLO	Expected Performance	Performance
AUTO105 - Hydraulics and Pneumatics		
A. Identify the principal components of pneumatics and hydraulics (Active from 2018 FA)	100.00%	78.95%
B. Calculate the appropriate pressure or force required to operate pneumatic and hydraulic system appropriately (Active from 2018 FA)	100.00%	68.42%
C. Select the appropriate material and construction design of components for pneumatic or hydraulic operation (Active from 2018 FA)	100.00%	68.42%
D. Identify differing types of valves and explain their operation (Active from 2018 FA)	100.00%	68.42%
E. Compare and contrast pneumatic versus hydraulic applications (Active from 2018 FA)	100.00%	73.68%
F. Identify components schematics of pneumatic and hydraulic systems (Active from 2018 FA)	100.00%	73.68%
AUTO111 - Automotive Engines		
Students demonstrate proper safety precautions using tools and equipment (Active from 2020 SU)	100.00%	100.00%
Students compare different measurements using both standard and metric measuring tools (Active from 2020 SU)	100.00%	85.71%
Students identify and describe different engine configurations (Active from 2020 SU)	100.00%	96.43%
Students describe overhead camshaft engine components for proper timing (Active from 2020 SU)	100.00%	92.86%
Students describe proper techniques in loosening and torquing fasteners that are torque to yield (Active from 2020 SU)	100.00%	100.00%
Students demonstrate proper engine disassembly and assembly using special tools and equipment (Active from 2020 SU)	100.00%	92.86%
AUTO120 - Automatic Transmissions and Transaxles		
1. Use appropriate safety practices while conducting automotive transmission service (Active from 2017 SP)	100.00%	89.47%
2. Identify the four major areas of the automatic transmission design: electrical, hydraulic, torque converters, and gear train (Active from 2017 SP)	100.00%	69.57%
3. Demonstrate the overhaul procedures for an automatic transmission clutch assembly (Active from 2017 SP)	100.00%	67.83%
4. Employ a scan tool supporting transmission diagnostics (Active from 2017 SP)	100.00%	66.09%
5. Explain the methods used in valve body service (Active from 2017 SP)	100.00%	68.70%
AUTO121 - Drivetrain Transmissions and Axles		
Demonstrate appropriate safety practices while conducting automotive transmission service. (Active from 2021 FA)	100.00%	100.00%
Identify the major components of a manual clutch system. (Active from 2021 FA)	100.00%	88.89%
Demonstrate knowledge of calculations to determine torque multiplication. (Active from 2021 FA)	100.00%	77.78%
Explain the difference between all-wheel drive systems and four wheel drive systems. (Active from 2021 FA)	100.00%	77.78%
Explain the theory and operation of transfer cases. (Active from 2021 FA)	100.00%	77.78%
Identify the four major areas of automatic transmission design. Electrical, hydraulic, torque converter, and gear train. (Active from 2021 FA)	100.00%	77.78%
Demonstrate the overhaul of an automatic transmission clutch assembly. (Active from 2021 FA)	100.00%	77.78%
Use a scan tool supporting transmission diagnostics. (Active from 2021 FA)	100.00%	77.78%

Course by SLO	Expected Performance	Performance
Demonstrate diagnosis and repair of a clutch. (Active from 2021 FA)	100.00%	77.78%
Interpret service information for transmission diagnosis and repair. (Active from 2021 FA)	100.00%	77.78%
AUTO151 - Automotive Alignment Brake and Suspension		
Students describe the components of the braking system. (Active from 2013 FA)	100.00%	73.12%
Students explain the hydraulic brake system. (Active from 2013 FA)	100.00%	72.04%
Students recognize normal brake system operations. (Active from 2013 FA)	100.00%	72.58%
Students identify the components of the anti-lock brake and the traction control system. (Active from 2013 FA)	100.00%	66.13%
Students explain the construction and function of tires and wheels. (Active from 2013 FA)	100.00%	72.04%
AUTO151 - Automotive Alignment Brake and Suspension		
Identify the components of the braking system. (Active from 2021 FA)	100.00%	71.43%
Explain the hydraulic brake system. (Active from 2021 FA)	100.00%	66.67%
Recognize normal brake system operations. (Active from 2021 FA)	100.00%	76.19%
Identify the components of the anti-lock brake and the traction control system. (Active from 2021 FA)	100.00%	61.90%
Explain the construction and function of tires and wheels. (Active from 2021 FA)	100.00%	57.14%
Demonstrate how to perform steering systems diagnosis and repair. (Active from 2021 FA)	100.00%	61.90%
Measure wheel alignment and perform necessary adjustments.Expected SLO Performance: 100.0 (Active from 2021 FA)	100.00%	42.86%
AUTO155 - Medium/Heavy Duty Brake Systems		
Identify the principal components of pneumatic braking systems (Active from 2018 FA)	100.00%	100.00%
Calculate the appropriate pressure or force required to operate pneumatic braking systems (Active from 2018 FA)	100.00%	100.00%
Select the appropriate material and construction design of components for pneumatic brake operation (Active from 2018 FA)	100.00%	100.00%
Identify differing types of pneumatic valves and explain their operation (Active from 2018 FA)	100.00%	100.00%
Compare and contrast pneumatic versus hydraulic brake systems (Active from 2018 FA)	100.00%	100.00%
Identify component schematics of pneumatic brake systems (Active from 2018 FA)	100.00%	100.00%
AUTO160 - Introduction to Automotive Electrical		
Use a digital multimeter to measure resistance, voltage, and amperage (Active from 2018 FA)	100.00%	63.33%
AUTO161 - Automotive Electricity		
Students explain the basic principles of electricity. (Active from 2013 FA)	100.00%	68.24%
Students differentiate between the different electrical circuits. (Active from 2013 FA)	100.00%	60.00%
Students use the proper tools to diagnose and repair electrical problems. (Active from 2013 FA)	100.00%	65.88%
Students identify the basic components of automotive electrical wiring. (Active from 2013 FA)	100.00%	65.88%
Students describe the relationship between the battery, starting, and charging systems. (Active from 2013 FA)	100.00%	67.06%
Students recognize the basic components of automotive lighting and accessories. (Active from 2013 FA)	100.00%	68.24%

Course by SLO	Expected Performance	Performance
AUTO170 - Automotive Air Conditioning		
Students identify the components of an A/C system. (Active from 2013 FA)	100.00%	51.95%
Students name the control types of the A/C system. (Active from 2013 FA)	100.00%	44.16%
Students demonstrate the use of the A/C charging station. (Active from 2013 FA)	100.00%	53.25%
Students explain the A/C leak testing procedure. (Active from 2013 FA)	100.00%	50.65%
Students identify the two types of A/C system designs. (Active from 2013 FA)	100.00%	50.65%
AUTO179 - Automotive Air Conditioning		
Identify the components of the A/C system. (Active from 2017 SP)	100.00%	0.00%
Demonstrate cooling system pressure testing. (Active from 2017 SP)	100.00%	0.00%
Demonstrate the use of the A/C charging station. (Active from 2017 SP)	100.00%	0.00%
Explain the A/C leak testing procedure. (Active from 2017 SP)	100.00%	0.00%
Identify the two types of A/C system designs. (Active from 2017 SP)	100.00%	0.00%
AUTO180 - Electronic Engine Management Systems		
Students identify all fuel system components and their relationship to one another. (Active from 2013 FA)	100.00%	0.00%
Students will describe the operation of emission control systems. (Active from 2013 FA)	100.00%	0.00%
Students will operate the scan-tool to identify D.T.C. (Diagnostic Trouble Codes). (Active from 2013 FA)	100.00%	0.00%
Students will complete a under hood visual inspection of fuel system components. (Active from 2013 FA)	100.00%	0.00%
Students will disassemble, clean, and re-test fuel injections for proper fuel flow (Active from 2013 FA)	100.00%	0.00%
The student will identify the emission control systems components on the vehicle. (Active from 2013 FA)	100.00%	0.00%
Students employ appropriate safety practices while conducting automotive service. (Active from 2013 FA)	100.00%	0.00%
AUTO180 - Electronic Engine Management Systems		
Identify and interpret engine performance concerns; determine needed action. (Active from 2021 FA)	100.00%	0.00%
Perform cylinder power balance test; determine needed action. (Active from 2021 FA)	100.00%	0.00%
Perform cylinder cranking and running compression tests; determine needed action. (Active from 2021 FA)	100.00%	0.00%
Perform cylinder leakage test; determine needed action. (Active from 2021 FA)	100.00%	0.00%
Diagnose engine mechanical, electrical, electronic, fuel, and ignition concerns; determine needed action. (Active from 2021 FA)	100.00%	0.00%
Retrieve and record diagnostic trouble codes (DTC), Onboard Diagnostic (OBD) monitor status, and freeze frame data; clear codes when applicable. (Active from 2021 FA)	100.00%	0.00%
Diagnose emissions or driveability concerns without stored or active diagnostic trouble codes; determine needed action. (Active from 2021 FA)	100.00%	0.00%
AUTO181 - Electronic Engine Management Systems- Corporate		

Course by SLO	Expected Performance	Performance
Demonstrate whether driveability problems are mechanically or electronically endured. (Active from 2021 FA)	100.00%	100.00%
Identify all fuel system components and their relationship to one another. (Active from 2021 FA)	100.00%	86.96%
Describe the process to clean and test fuel injections for proper fuel flow. (Active from 2021 FA)	100.00%	73.91%
Describe the operation of emission control systems. (Active from 2021 FA)	100.00%	86.96%
Complete a under hood visual inspection of fuel system components. (Active from 2021 FA)	100.00%	95.65%
Operate the scan-tool to identify D.T.C. (Diagnostic Trouble Codes). (Active from 2021 FA)	100.00%	86.96%
Identify the emission control systems components on the vehicle. (Active from 2021 FA)	100.00%	91.30%
AUTO181 - Electronic Engine Management Systems-Corporate		
Students demonstrate whether driveability problems are mechanically or electronically endured. (Active from 2013 FA)	100.00%	67.38%
Students identify all fuel system components and their relationship to one another. (Active from 2013 FA)	100.00%	70.59%
Students will disassemble, clean, and re-test fuel injections for proper fuel flow. (Active from 2013 FA)	100.00%	66.86%
Students will describe the operation of emission control systems. (Active from 2013 FA)	100.00%	66.31%
Students will complete a under hood visual inspection of fuel system components. (Active from 2013 FA)	100.00%	66.84%
Students will operate the scan-tool to identify D.T.C. (Diagnostic Trouble Codes). (Active from 2013 FA)	100.00%	70.05%
Student will identify the emission control systems components on the vehicle. (Active from 2013 FA)	100.00%	61.96%
AUTO182 - Introduction To Alternative Fuel		
1. Describe operation and function of CNG system (Active from 2017 SP)	100.00%	0.00%
2. Explain the CNG ignition combustion process (Active from 2017 SP)	100.00%	0.00%
3. Differentiate between the three types of alternative fuels (Active from 2017 SP)	100.00%	0.00%
4. Interpret the trouble shooting charts (Active from 2017 SP)	100.00%	0.00%
5. Explain the general maintenance procedures (Active from 2017 SP)	100.00%	0.00%
AUTO190 - Automotive Management		
Students examine automotive organizational management. (Active from 2013 FA)	100.00%	0.00%
Students design an automotive shop layout. (Active from 2013 FA)	100.00%	0.00%
Students evaluate automotive shop equipment. (Active from 2013 FA)	100.00%	0.00%
Students recognize the importance of shop safety. (Active from 2013 FA)	100.00%	0.00%
Students demonstrate automotive accounting and bookkeeping practices. (Active from 2013 FA)	100.00%	0.00%
Students prepare an automotive management business plan. (Active from 2013 FA)	100.00%	0.00%
Students examine personnel management and motivation. (Active from 2013 FA)	100.00%	0.00%
Students identify automotive service quality control methods. (Active from 2013 FA)	100.00%	0.00%

Course by SLO	Expected Performance	Performance
AUTO193 - Automotive Service Information Management		
Students examine 'B.A.R./Write It Right' service repair order regulations. (Active from 2013 FA)	100.00%	100.00%
Students design customer relations information management systems. (Active from 2013 FA)	100.00%	100.00%
Students assemble computerized service advisor repair order information system. (Active from 2013 FA)	100.00%	100.00%
Students assess vendor and supplier service information systems. (Active from 2013 FA)	100.00%	100.00%
Students formulate automotive service paper based references. (Active from 2013 FA)	100.00%	100.00%
Students interpret automotive service government regulations. (Active from 2013 FA)	100.00%	100.00%
AUTO194 - Retailing Automotive Service		
Students formulate a retail automotive service labor rate. (Active from 2013 FA)	100.00%	0.00%
Students analyze retail automotive labor guides. (Active from 2013 FA)	100.00%	0.00%
Students interpret retail automotive technician productivity reports. (Active from 2013 FA)	100.00%	0.00%
Students create a retail automotive shop environment. (Active from 2013 FA)	100.00%	0.00%
Students setup a retail automotive customer environment. (Active from 2013 FA)	100.00%	0.00%
Students develop retail automotive customer follow up and promotional systems. (Active from 2013 FA)	100.00%	0.00%
AUTO195 - Automotive Customer Relations		
Students recognize effective automotive service communication skills. (Active from 2013 FA)	100.00%	0.00%
Students manage automotive service customer conflict. (Active from 2013 FA)	100.00%	0.00%
Students will illustrate automotive service goal setting techniques. (Active from 2013 FA)	100.00%	0.00%
Students identify automotive service areas of improvement. (Active from 2013 FA)	100.00%	0.00%
Students examine ethical principles automotive customer service. (Active from 2013 FA)	100.00%	0.00%
Students demonstrate automotive service customer relationship management. (Active from 2013 FA)	100.00%	0.00%
AUTO200 - General Motors Fundamentals		
Explain Ohm's and Watt's Laws. (Active from 2020 FA)	100.00%	66.67%
Analyze service information in order to diagnose and repair vehicle faults. (Active from 2020 FA)	100.00%	66.67%
Demonstrate how to find repair procedures using General Motors Service Information (SI). (Active from 2020 FA)	100.00%	66.67%
Identify five General Motors Special Service Tools (SST). (Active from 2020 FA)	100.00%	66.67%
Explain the General Motors strategy based diagnostic procedure. (Active from 2020 FA)	100.00%	66.67%
Auto201 - General Motors Engine Repair		
Explain the four stroke cycle. (Active from 2020 FA)	100.00%	44.44%
Demonstrate how to find repair procedures using General Motors Service Information (SI). (Active from 2020 FA)	100.00%	44.44%
Analyze service information in order to diagnose and repair vehicle faults. (Active from 2020 FA)	100.00%	44.44%
Identify internal engine components such as pistons, connecting rods, crankshaft, camshaft, engine block, and the valve train. (Active from 2020 FA)	100.00%	44.44%

Course by SLO	Expected Performance	Performance
Identify five General Motors Special Service Tools (SST) used in engine repair. (Active from 2020 FA)	100.00%	44.44%
Auto203 - General Motors Manual Drivetrain and Axle		
Demonstrate diagnosis and repair of a clutch. (Active from 2020 FA)	100.00%	62.50%
Interpret service information for transmission diagnosis and repair. (Active from 2020 FA)	100.00%	62.50%
Use diagnostic tools to perform transaxle diagnosis and repair. (Active from 2020 FA)	100.00%	62.50%
Demonstrate how to diagnose drive/half shaft and universal/CV joint to determine the cause of noise and vibration. (Active from 2020 FA)	100.00%	62.50%
Inspect drive axles and determine necessary repair procedures. (Active from 2020 FA)	100.00%	62.50%
Test four-wheel drive and all-wheel drive system for proper operation. (Active from 2020 FA)	100.00%	62.50%
Auto205 - General Motors Braking Systems		
Demonstrate how to perform hydraulic, power assist, and parking brake systems diagnosis and repair. (Active from 2020 FA)	100.00%	50.00%
Perform drum brake diagnosis and repair. (Active from 2020 FA)	100.00%	50.00%
Perform disc brake diagnosis and repair. (Active from 2020 FA)	100.00%	50.00%
Identify components in an electronic brake control system. (Active from 2020 FA)	100.00%	50.00%
Auto206 - General Motors Electrical Systems 1		
Demonstrate how to perform battery diagnosis and repair. (Active from 2020 FA)	100.00%	44.44%
Demonstrate how to perform starting system diagnosis and repair. (Active from 2020 FA)	100.00%	44.44%
Demonstrate how to perform charging system diagnosis and repair. (Active from 2020 FA)	100.00%	44.44%
Perform general electrical/electronics diagnosis and repair. (Active from 2020 FA)	100.00%	44.44%
Use wiring diagrams to assist in electrical diagnosis. (Active from 2020 FA)	100.00%	44.44%
AUTO208 - General Motors Engine Performance 1		
Perform general engine condition diagnosis. (Active from 2020 FA)	100.00%	50.00%
Test ignition systems. (Active from 2020 FA)	100.00%	50.00%
Demonstrate how to test fuel system concerns. (Active from 2020 FA)	100.00%	50.00%
Demonstrate how to test intake and exhaust systems. (Active from 2020 FA)	100.00%	50.00%
AUTO212 - Advanced High Performance Engines		
Develop skills set related to the topic outlined in consultation with the instructor (Active from 2018 FA)	100.00%	0.00%
Complete a summary evaluation of skills attained or knowledge acquired during the advanced high performance engines assigned projects (Active from 2018 FA)	100.00%	0.00%
Conduct research related to the topic outlined in consultation with the instructor (Active from 2018 FA)	100.00%	0.00%
Evaluate the research and compare with project results (Active from 2018 FA)	100.00%	0.00%
Students demonstrate proper techniques in operating the chassis dynamometer (Active from 2018 FA)	100.00%	0.00%
students demonstrate proper techniques in operating the flow bench (Active from 2018 FA)	100.00%	0.00%

Course by SLO	Expected Performance	Performance
AUTO260 - Advanced Electrical Systems		
Students demonstrate use of the digital multi-meter. (Active from 2013 FA)	100.00%	0.00%
Students explain ohm law as it relates to Series and Parallel circuits. (Active from 2013 FA)	100.00%	0.00%
Students identify electrical/electronic components. (Active from 2013 FA)	100.00%	0.00%
Students identify the symbols used in an electrical diagram. (Active from 2013 FA)	100.00%	0.00%
Students interpret electrical trouble shooting charts. (Active from 2013 FA)	100.00%	0.00%
Students use the appropriate safety practices when performing automotive service. (Active from 2013 FA)	100.00%	0.00%
AUTO260 - Intermediate Automotive Electrical		
Explain Ohm's law as it relates to series and parallel circuits (Active from 2018 FA)	100.00%	0.00%
Identify the symbols used in an electrical diagram (Active from 2018 FA)	100.00%	0.00%
Interpret electrical troubleshooting charts (Active from 2018 FA)	100.00%	0.00%
Demonstrate use of a digital multimeter and digital oscilloscope (Active from 2018 FA)	100.00%	0.00%
Identify electrical/electronic components (Active from 2018 FA)	100.00%	0.00%
Describe computer networking systems in modern vehicles (Active from 2018 FA)	100.00%	0.00%
AUTO280 - Diagnostic Engine Performance		
Students demonstrate an understanding of on-car computers P.C.M. (Powertrain Control Modules). (Active from 2013 FA)	100.00%	43.18%
Students identify drivability problems by the use of D.T.C. (Diagnostic Trouble Codes). (Active from 2013 FA)	100.00%	46.59%
Students demonstrate knowledge of OBD-II operation. (Active from 2013 FA)	100.00%	44.32%
Students operate an oscilloscope to diagnose engine sensors. (Active from 2013 FA)	100.00%	36.36%
Students identify and repair emission control failures. (Active from 2013 FA)	100.00%	39.77%
AUTO281 - Emission Control Systems -1997 Standards		
Students use the appropriate safety practices when performing automotive service. (Active from 2013 FA)	100.00%	0.00%
Students identify the emission control systems components on the vehicle. (Active from 2013 FA)	100.00%	0.00%
Students compare emissions, gases, HC, CO, NOX, CO2, and O2 with factory specifications. (Active from 2013 FA)	100.00%	0.00%
Students describe the operation of the emission control systems. (Active from 2013 FA)	100.00%	0.00%
Students demonstrate a ASM test(Acceleration Simulation Mode). (Active from 2013 FA)	100.00%	0.00%
Students complete a under hood visual inspection of fuel system components. (Active from 2013 FA)	100.00%	0.00%
Students operate the scan tool to identify D.T.C. (Diagnostic Trouble Codes). (Active from 2013 FA)	100.00%	0.00%
AUTO73 - Automotive Mechanical Repair Occupational Work Experience		
Complete the assigned ASE technical tasks related to this subject. (Active from 2013 FA)	100.00%	80.43%
AUTO80 - Bureau of Automotive Repair (BAR) ASE Alternative Courses for Advanced Emissions Special		

Course by SLO	Expected Performance	Performance
Compare emissions, gases, HC, CO, NOX, CO2, and O2 with factory specifications (Active from 2013 FA)	100.00%	0.00%
Demonstrate whether driveability problems are mechanically or electronically endured (Active from 2013 FA)	100.00%	0.00%
Describe the operation of emission control systems (Active from 2013 FA)	100.00%	0.00%
Employ appropriate safety practices while conducting automotive service (Active from 2013 FA)	100.00%	0.00%
Identify the emission control systems components on the vehicle (Active from 2013 FA)	100.00%	0.00%
Operate the scan-tool to identify Diagnostic Trouble Codes(D.T.C.) (Active from 2013 FA)	100.00%	0.00%
Use the proper tools to diagnose and repair electrical problems (Active from 2013 FA)	100.00%	0.00%
AUTO100 - Automotive Maintenance and Operation		
Students perform a thorough automobile safety inspection. (Active from 2013 FA)	100.00%	67.20%
Students perform basic preventative maintenance on an automobile. (Active from 2013 FA)	100.00%	69.33%
Students describe base engine components and the process of internal combustion. (Active from 2013 FA)	100.00%	66.67%
Students explain the major concepts of electrical theory. (Active from 2013 FA)	100.00%	59.20%
Students identify the braking system components. (Active from 2013 FA)	100.00%	59.73%
Students explain the operation of the fuel and ignition systems. (Active from 2013 FA)	100.00%	63.73%
AUTO110 - Automotive Engines		
Demonstrate proper safety precautions using tools and equipment. (Active from 2013 FA)	100.00%	43.77%
Demonstrate how to use both standard and metric precision measuring instruments. (Active from 2013 FA)	100.00%	42.86%
Identify and describe different cylinder and valve arrangements. (Active from 2013 FA)	100.00%	39.21%
Describe overhead camshaft engine components. (Active from 2013 FA)	100.00%	42.55%
Describe proper techniques that apply to torque-to-yield fasteners. (Active from 2013 FA)	100.00%	40.12%
Demonstrate proper engine disassembly and assembly using special tools and equipment. (Active from 2013 FA)	100.00%	41.95%
AUTO121 - Drivetrain Transmissions and Axles		
Students use appropriate safety practices while conducting automotive transmission service. (Active from 2013 FA)	100.00%	66.20%
Students identify the major components of a manual clutch system. (Active from 2013 FA)	100.00%	57.04%
Students use calculations to determine torque multiplication. (Active from 2013 FA)	100.00%	52.86%
Students explain the difference between all-wheel drive systems and four wheel drive systems. (Active from 2013 FA)	100.00%	52.82%
Students explain the theory and operation of transfer cases. (Active from 2013 FA)	100.00%	54.23%
Students identify the four major areas of automatic transmission design. Electrical, hydraulic, torque converter, and gear train. (Active from 2013 FA)	100.00%	54.23%
Students demonstrate the overhaul of an automatic transmission clutch assembly. (Active from 2013 FA)	100.00%	58.45%
Students employ a scan tool supporting transmission diagnostics. (Active from 2013 FA)	100.00%	49.65%
AUTO130 - Manual Drivetrain and Axles		

Course by SLO	Expected Performance	Performance
Students use appropriate safety practices while conducting automotive transmission and drive train service. (Active from 2013 FA)	100.00%	80.56%
Students use appropriate lifting equipment for vehicles and components. (Active from 2013 FA)	100.00%	75.93%
Students identify the major components of a manual clutch system. (Active from 2013 FA)	100.00%	71.30%
Students use appropriate methods for calculating simple gear ratios. (Active from 2013 FA)	100.00%	67.59%
Students explain the difference between all-wheel drive systems. (Active from 2013 FA)	100.00%	60.19%
Students explain the four common selector positions of a simple transfer case. (Active from 2013 FA)	100.00%	62.96%
Students complete universal joint service using one of the three common techniques. (Active from 2013 FA)	100.00%	68.52%
Students explain the power flow through a manual transmission or transaxle. (Active from 2013 FA)	100.00%	68.52%
AUTO140 - Automotive Steering and Suspension		
Students practice proper classroom and shop safety practices. (Active from 2013 FA)	100.00%	64.56%
Students describe suspension system components and operation. (Active from 2013 FA)	100.00%	49.51%
Students demonstrate front suspension diagnosis and service. (Active from 2013 FA)	100.00%	52.91%
Students practice rear suspension diagnosis and service. (Active from 2013 FA)	100.00%	49.51%
Students demonstrate power steering diagnosis and service. (Active from 2013 FA)	100.00%	53.40%
Students identify electronic suspension component operation and service. (Active from 2013 FA)	100.00%	54.37%
AUTO150 - Automotive Brakes		
Students demonstrate proper safety procedures while servicing automotive brake systems. (Active from 2013 FA)	100.00%	100.00%
Students describe braking system components and operation. (Active from 2013 FA)	100.00%	66.67%
Students demonstrate hydraulic system diagnostic and service. (Active from 2013 FA)	100.00%	60.16%
Students practice disk brake diagnostic and service. (Active from 2013 FA)	100.00%	66.67%
Students demonstrate drum brake diagnostic and service. (Active from 2013 FA)	100.00%	53.66%
Students demonstrate drum brake diagnostic and service. (Active from 2013 FA)	100.00%	58.82%
AUTO160 - Introduction to Automotive Electrical		
Students employ appropriate safety practices while conducting automotive service. (Active from 2013 FA)	100.00%	80.26%
Students describe the function of the starting system. (Active from 2013 FA)	100.00%	52.63%
Students describe the function of the charging system. (Active from 2013 FA)	100.00%	51.32%
Students describe the primary and secondary function of the ignition system. (Active from 2013 FA)	100.00%	0.00%
Students use wiring schematics to identify faults. (Active from 2013 FA)	100.00%	48.68%
Students demonstrate proper use of proper diagnostic tools. (Active from 2013 FA)	100.00%	55.26%
AUTO210 - Automotive Upper Engine Machinist		
Recognize and avoid common accidents that occur in automotive repair and machine shops. (Active from 2013 FA)	100.00%	0.00%

Course by SLO	Expected Performance	Performance
Demonstrate the different machining processes used in engine repair and rebuilding. (Active from 2013 FA)	100.00%	0.00%
Demonstrate how to read micrometer scales in metric and inch units. (Active from 2013 FA)	100.00%	0.00%
Demonstrate how to check flatness of cylinder head deck surfaces. (Active from 2013 FA)	100.00%	0.00%
Demonstrate how to replace integral guides with valve guide bushings. (Active from 2013 FA)	100.00%	0.00%

Assessment Report (Part 2: Assessment Responses) : Version by **Mulleary, Joe** on **05/20/2023 15:31**

Explain the frequency (i.e., when and how often) and content of assessment process (e.g., planning, data collection, and results) for the program (e.g., department meetings, advisory boards, etc.). Also, describe the process for reviewing and discussing outcomes data.

Our department has been the lowest in the Technology Division when it comes to reporting SLOs for several years now **THE DEPARTMENT CHAIR HAS** included SLOs in department meetings on a regular basis, **SHOWED INSTRUCTORS HOW TO USE ELUMEN AND COMPLETE THE REPORTING BUT OUR DEPARTMENT STILL DOESN'T HAVE 100% REPORTING**. There is just not enough data to gather insight into how to make any necessary changes.

Some of the SLOs should be updated but **THE DEPARTMENT CHAIR IS** the only instructor in the department who has gone through the process in recent years. **HE HAS** also asked for everyone in the department to review the SLOs for their class or classes since they will need to be updated as needed.

Describe the process for development of plan for improvement and summarize the changes that discipline faculty plan to implement based on the analysis of the student learning and program effectiveness. Provide specific examples.

THE PLAN FOR THE DEPARTMENT IS TO REPORT EVERY SEMESTER SO WE CAN GATHER BETTER DATA FOR PROGRAM IMPROVEMENT. THE TEAM WILL REVIEW THE SLOS FOR EACH CLASS AT LEAST ONCE EVERY THREE YEARS.

Data Analysis of Program Data : Version by **Mulleary, Joe** on **05/13/2023 14:30**

Describe your student demographics (race/ethnicity, gender, age, and others that might be relevant). Consider the following questions when writing your response:

- How do the demographics of your program and its related courses compare with the college as a whole?
- Have they changed over time?

Our demographics in Auto look about the same as the college as a whole. The highest percentage of our students, 45%, are 20-24 years old which has remained consistent over the last six years. Students 19 and under account for the second highest percentage in Auto at 27%. Hispanic/Latinos have accounted for an average of 78% of our students for the last six years.

For the college as a whole 20-24 year old students are also the highest percentage at an average of 32% of the population. The college six year average for Hispanic/Latino students is 67%. The second highest age range at the college is 25-34 which accounts for about 25% whereas there are only an average of 19% who are 25-34 in Auto.

Female students account for about 7% of all Auto students on a six year average. One of the Perkins core indicators looks at "non-traditional" students and for Auto that would be female students. THE DEPARTMENT created a Perkins project to address the low numbers and found out better ways to promote our program overall, not just to females. For example, one thing our team learned during a boot camp training on how to bring women into CTE areas was that at least half of the promotional photos we use need to be of other women. Since this training we updated on landing page with photos of more female students. We also did the same thing when updating our promotional flyers showing our certificate offerings. Much more can be done but right now we don't have a team of FT instructors who want to put the time and effort necessary.

Headcount (unduplicated) and enrollment (duplicated) in the program. Consider the following questions when writing your response:

- Identify enrollment trends.
- Have there been an increase or decrease in enrollment in the last year?
- Are there differences in trends when you disaggregate the data (e.g., online versus face-to-face, demographics, special populations, etc.)?
- How will enrollment trends affect staffing decisions?

The data only shows up to 2021-2022 which shows a decline in enrollment since the pandemic. But **THE DEPARTMENT CHAIR** knows from scheduling for our area that enrollment is now increasing. **ENROLLMENT COUNTS WERE COMPARED FROM 2021-2022 AND 2022-2023. THE RESULTS ARE BELOW.**

FALL 2021 ENROLLMENT COUNTS WERE 385 AND COMPARED WITH 392 FOR FALL 2022. ENROLLMENT REMAINED STABLE YEAR OVER YEAR.

THE TEAM WAS ABLE TO DETERMINE AN ENROLLMENT INCREASE based on a majority of our classes for **SPRING 2023 FILLING COMPARED WITH SPRING 2022. DURING SPRING 2022 THE DEPARTMENT OFFERED A TOTAL OF 46 SECTIONS WITH AN ENROLLMENT COUNT OF 346. IN SPRING 2023 WE OFFERED 36 CLASS SECTIONS WITH AN ENROLLMENT COUNT OF 434. THAT IS A 25% INCREASE IN ENROLLMENT YEAR OVER YEAR.**

THE DEPARTMENT SAW AN 11% INCREASE IN ENROLLMENT COUNTS BETWEEN FALL 2022 AND SPRING 2023. USUALLY THERE IS A SLIGHT DROP BETWEEN FALL AND SPRING SO THIS WAS A PLEASANT SURPRISE.

Almost all of our classes are 100% face-to-face. Only the GM ASEPP program runs in a hybrid format and that is due to input from our advisory committee so students can work on both Mondays and Fridays which are the busiest days at dealerships.

Enrollment trends affect staffing because for a few years we were consistently cancelling at least one or two classes per semester. **THE DEPARTMENT CHAIR** worked with **THE** dean last summer to focus on General Technician program and that has really helped with enrollment. Now **WE ARE** looking to expand course offerings for several classes. **THE** goal in the next year or two is to be able to offer morning students a complete path to complete our General Technician pathway. We already offer a night option for students to complete the entire pathway. **WE** also want to expand our afternoon course offerings to maximize our facility usage.

Discuss the program's success and retention rates, addressing any performance gaps if success rates are lower for disproportionately impacted students. Consider the following questions when writing your response:

- How have the success and retention rates changed over time?
- Are there particular courses that have particularly low rates and may prove a barrier to program completion?

Our success rates over the last six year have been consistent at about 75%.

Our retention rates have shown an increase since the start of the pandemic. Overall students are glad to be back fully in person with Auto classes.

We don't have particular courses that have been a barrier to completion due to success or retention rates. But we do have some classes that have been a barrier to completion in less popular certificates due to cancelling the classes because of low enrollment.

With regards to success and retention rates, what is the program doing or planning to do to close performance gaps and address student equity? Consider the following question when writing your response:

- Are there differences in success rates across delivery method (e.g., face-to-face compared to online)?

Most of the courses are now offered face-to-face since the emergency DE approvals have expired. Only the GM ASEP program offers hybrid courses. The first cohort in this format for GM ASEP will be graduating in May and so far this format works better for both the students and their employers.

Discuss conclusions drawn from the program data, assessments (SLOs), and/or other data. Indicate any specific responses or programmatic changes based on the data.

Shifting the focus of our program to the General Technician pathway has been beneficial when it comes to enrollment. The next thing I'd like to do is deactivate the Automotive Management courses because we have not be able to offer the certificate pathway in a two year timeframe for a while.

Curricular Course Review : Version by **Mulleary, Joe** on **05/13/2023 14:30**

Provide the curriculum course review timeline to ensure all courses are reviewed at least once every six years.

In fall 2019 when **A NEW** department chair **TOOK OVER** there was no curriculum review cycle. Some classes had been created such as Auto 105, 155, and 183. And some classes were modified like Auto 160 but most classes hadn't been modified since 2005.

THE NEW DEPARTMENT CHAIR first addressed the GM ASEP program in fall 2019 because it needed and overall and that was supported by our GM ASEP advisory committee. The original model that was created back in 1981 was no longer working so **HE** created 13 brand new classes and two certificates.

The department also began to create some smaller certificates THAT WOULD LEAD TO LARGER, MOST COMPREHENSIVE CERTIFICATES since most of our certificates have been difficult to obtain. These include the following:

1. **Entry Level Quick Service Technician**
2. **Automotive Heavy Line & Chassis Technician**
3. **Automotive Electrical & Engine Performance Technician**
4. **Automotive Drivetrain & Air Conditioning**
5. **General Motors Essentials**
6. **General Motors Advanced**

Explain any course additions to current course offerings.

During this curriculum cycle **THE DEPARTMENT CHAIR** modified Auto 54 to make it CSU transferable and also updated the curriculum for the class. The class will be **re-titled** Auto 103, Introduction to Hybrid Electric Vehicles and it will be offered in fall 2023. **THE DEPARTMENT CHAIR** also reactivated Auto 108, Energy and Transportation Systems. Both of the classes will be part of the updated Alternative Fuels Service Technician pathway. The plan is for both of them to also be offered as dual enrollment taught by a new PT instructor who is FT at Downey HS.

THE DEPARTMENT CHAIR also decided to remove Auto 55 from the Alternative Fuels Service Technician certificate and also delete that class. **We have not been able to offer Auto 55 on a regular basis so it made sense to make the certificate more obtainable for students.**

Explain any course deletions and inactivations from current course offerings.

During the last two years **THE DEPARTMENT CHAIR** has either deleted or inactivated courses our department is no longer offering. **These include:**

1. **Auto 74**
2. **Auto 99**

Discuss how well the courses, degrees, and/or certificates meet students' transfer or career training needs. Consider the following questions:

- Have all courses that are required for the program's degrees and certificates been offered during the last two years? If not, has the program established a course offering cycle?
- How has degree and/or certificate completion changed over time?
- Are there sufficient completers compared with the size of your program?

No, we have not been able to offer all courses for each certificate option during the last two years. Some courses we don't have an instructor to teach and some courses haven't had the demand where we can offer them on a regular basis. **THE DEPARTMENT CHAIR** created an improved course offering schedule with a focus on our most popular certificate which is the General Technician option.

THE TEAM also began to address certificates where certain courses have created barriers to completion due to limited course offerings. **These include:**

1. **Emissions Essentials Service Technician**
2. **Fleet Technician**
3. **Industrial Vehicle Technician**
4. **Automotive Management**
5. **Electrical/Diagnosis Technician**
6. **Alternative Fuels Service Technician**

Starting in fall 2023 CLASSES ARE scheduled we have not been able to offer on a regular basis which will improve the completion rate for the six certificates above.

Are any licensure/certification exams required for program completion or career entry?

- If so, what is the pass rate among graduates?
- Set an attainable, measurable goal for pass rates and identify any applicable performance benchmarks set by regulatory agencies.

There are no certification exams required for completed any of our programs or entering the automotive field. But our department has an outside accreditation with the ASE Education Foundation and students are encouraged to take ASE certification tests. The United States only has one accreditation body when it comes to Automotive Technology and technicians working in the field are highly encouraged or even required in many cases at the dealership level to become certified.

Program Reflection

Six-Year Program Reflection : Version by **Mulleary, Joe** on **05/20/2023 15:31**

Provide an analysis of your program throughout the last six years, reflecting on student demographics and enrollment. Reflect on any changes you would like to see in your program in the next six years.

During the last six years our program has seen a steady decrease in enrollment. The student demographics have not changed during that time period. We have a high percentage of students who get employed in the field but we don't have high numbers when it comes to female students. **THE DEPARTMENT CHAIR** submitted a Perkins project to address low non-traditional enrollment and what **WE** found is we have about 10% non-traditional students in our intro course, Auto 100. But **WE** found that 75% of those students do not move on to the other courses we offer.

What is the six-year trend of degrees and certificates awarded? Is there anything you can do to help increase the number of students who acquire degrees and/or transfer?

For the number of students enrolled in our Automotive program our completion rate is low as shown by core indicator #2 in our Perkins report. We have an average of just under 40 completers per year. Our program is skills based so most students don't see the importance of obtaining a certificate or degree. Once they gain the skills needed to be employed they often get hired and don't return for their certificate or degree.

THE DEPARTMENT CHAIR HAS attempted to address this with both curriculum changes and with a Perkins project but haven't had much success yet. Last spring **WE WERE** able to hire two students as adult hourly employees and the goal was to visit each class and present the curriculum changes that took place along with showing students how to petition for their certificate and degree. Some of the classes were visited but due to scheduling conflicts with the two adult hourly students not all classes were visited.

Were there any unplanned events (positive or negative) that affected your program? If so, what were they and how did they affect the program?

The pandemic adversely affected our program. Some of our classes resumed with in-person lab in Fall 2020 once we were given an option to return to campus. Unfortunately, some of our instructors opted to stay home and teach online. This really delayed the return for students wanting to take many classes in person.

In Fall 2020 we were unable to start a new GM ASEP cohort for the first time since the program began in 1981. Then **WE** had a FT instructor retire in May 2021 and consequently we were unable to start a new Ford ASSET cohort for the first time since 1986. In May 2022 another FT instructor retired at the last minute and it initially created chaos.

Due to a lack of dedicated FT faculty we were unable to continue with a Mopar **CAREER AUTOMOTIVE PROGRAM (CAP)** cohort or Import Technician Training Program (ITTP) cohort. **THE WORD MOPAR STEMS FROM MOTOR AND PARTS. IT HAS BEEN UTILIZED BY DODGE, CHRYSLER, JEEP, AND RAM FOR MANY YEARS.** Students interested in those programs have been moved over to the General Technician pathway option.

Please describe any recent achievements in your program by faculty and staff who have won awards or distinctions, new projects your program has implemented, committee work, professional development work, conference presentations, community engagement, or recently published work.

During the 2019-2020 academic year Joe Mulleary received an Outstanding Faculty Award. Since then he has also completely revamped the GM ASEP program with 13 new classes, 2 new certificates, and an AS degree. He was also nominated in May 2022 to assume a role within the GM ASEP association as the Western Region Vice President on the Board of Directors. In January 2023 he took on that new role which has a term of three years. **IN APRIL 2023 HE WAS ALSO RECOGNIZED BY BELLFLOWER UNIFIED SCHOOL DISTRICT FOR HELPING THE DISTRICT UPDATE THEIR AUTOMOTIVE PROGRAM AT BELLFLOWER HIGH SCHOOL. IT INVOLVED SEVERAL SITE VISITS AND MAKING SUGGESTIONS ON HOW TO BETTER ALIGN WITH OUR PROGRAM AND THE ASE EDUCATION FOUNDATION WHICH IS THE NATIONAL ACCREDITATION BODY FOR AUTOMOTIVE TECHNOLOGY.**

In terms of shared governance committee participation at the college Frank Vega is part of Faculty Senate and Professional Development. Leonard Glick is part of the Extensive Lab Committee.

Provide a status update on goals from the last program review cycle.

AFTER REVIEWING THE GOALS FROM THE PREVIOUS PROGRAM REVIEW CYCLE IT WAS EVIDENT THESE WERE NOT SHARED AMONG THE GROUP OF FT INSTRUCTORS. SOME OF THEM WERE MET BUT MOST OF THEM WERE NOT. THE PREVIOUS DEPARTMENT CHAIR DID NOT FOLLOW UP ON IMPLEMENTING THE CHANGES TO MEET THE GOALS OUTLINED.

THE CURRENT DEPARTMENT CHAIR HAS WORKED DILIGENTLY TO STEER THE DEPARTMENT BACK IN THE RIGHT DIRECTION AND COMMUNICATION HAS BEEN KEY. THERE IS NOW CLEAR BUYIN FROM THE MAJORITY OF FACULTY. THE PLAN IS TO KEEP UP THE MOMENTUM WITH THE NEW FT FACULTY WHO WILL BE STARTING IN AUGUST 2023.

If applicable, describe the resources the program received from the last review cycle and the impact it had on the program?

N/A

Resource Requests

Faculty Resource Request(s) : Version by **Mulleary, Joe** on **03/22/2023 04:29**

Our department has lost an instructor due to retirement in each of the last two years. That has impacted course offerings.

Program/Department/Division:

Automotive Technology

Technology Division

Title of instructor position:

Full-time Faculty (2)

Priority:

1. Critical (mission critical or must have)
2. Important (creates value and efficiency for program)
3. It can wait (would be nice if the money is available)

No Value

Is this position:

- New (not in the current budget)
- Replacement (in the current budget, currently vacant or will be vacant in the next budget year)
- Full-Time Temporary
- Conversion (grant to general fund)

Replacement for someone who retired in May 2021.

Cost estimate:

\$100,000

Occurrence:

- Recurring expense
- One-time augmentation

recurring expense

Funding source:

- Instructional equipment
- Perkins
- Grants/contracts
- Vintage
- General fund (Program 100)
- Categorical – Equity
- Categorical – 3SP
- Categorical – Other
- Other funding

General Fund

Provide a summary and rationale for this position. Explain how the position will help the program better meet its goals.

Our Ford ASSET and GM ASEP programs have enough student demand to offer a cohort every year. Due to retirements currently are only able to start a new cohort every two years and yet demand in the industry has only increased.

If this position is not filled, what is the potential impact to student success?

The impact for Ford ASSET is that we have one instructor who is at retirement age and we don't want to lost this program at the college.

The impact for GM ASEP is that we are located in the #2 market in the United States and General Motors may decide to pull the program and offer it at another local college where they can start a a cohort once a year.

Classified Resource Request(s)

Program/Department/Division:

No Value

Position requested:

No Value

Priority:

1. Critical (mission critical or must have)
2. Important (creates value and efficiency for program)
3. It can wait (would be nice if the money is available)

No Value

Is this position:

- New (not in the current budget)
- Replacement (in the current budget, currently vacant or will be vacant in the next budget year)
- Full-Time Temporary
- Conversion (grant to general fund)

No Value

Cost estimate:

No Value

Occurrence:

- Recurring expense
- One-time augmentation

No Value

Funding source:

- Instructional equipment
- Perkins
- Grants/contracts
- Vintage
- General fund (Program 100)
- Categorical – Equity
- Categorical – 3SP
- Categorical – Other
- Other funding

No Value

Provide a summary and rationale for this position. Explain how the position will help the program better meet its goals.

No Value

If this position is not filled, what is the potential impact to student success?

No Value

Other Staffing Resource Request(s) (e.g., Manager, Confidential, etc.)

Program/Department/Division:

No Value

Position requested:

No Value

Priority:

1. Critical (mission critical or must have)
2. Important (creates value and efficiency for program)
3. It can wait (would be nice if the money is available)

No Value

Is this position:

- New (not in the current budget)
- Replacement (in the current budget, currently vacant or will be vacant in the next budget year)
- Full-Time Temporary
- Conversion (grant to general fund)

No Value

Cost estimate:

No Value

Occurrence:

- Recurring expense
- One-time augmentation

No Value

Funding source:

- Instructional equipment
- Perkins
- Grants/contracts
- Vintage
- General fund (Program 100)
- Categorical – Equity
- Categorical – 3SP
- Categorical – Other
- Other funding

No Value

Provide a summary and rationale for this position. Explain how the position will help the program better meet its goals.

No Value

If this position is not filled, what is the potential impact to student success?

No Value

Professional Development Resource Request(s)

Explain and justify the program's training and professional development needs. Explain how the training/professional development will help the program better meet its goals.

No Value

Professional Development Resource Request(s):

No Value

Priority:

1. Critical (mission critical or must have)
2. Important (creates value and efficiency for program)
3. It can wait (would be nice if the money is available)

No Value

Cost estimate:

No Value

Occurrence:

- Recurring expense
- One-time augmentation

No Value

Funding source:

- Instructional equipment
- Perkins
- Grants/contracts
- Vintage
- General fund (Program 100)
- Categorical – Equity
- Categorical – 3SP
- Categorical – Other
- Other funding

No Value

Facilities Resource Request(s) : Version by **Mulleary, Joe** on **05/20/2023 15:31**

Identify and justify any facilities and equipment needs. Explain how it will help the program better meet its goals. If possible, indicate other disciplines who may share this space.

RECENTLY CAMPUS FACILITIES HAS MODIFIED SERVICE LEVEL AGREEMENTS WITH OUR DEPARTMENT WHEREBY WATER, ELECTRICITY, AND BUILDING MAINTENANCE ARE THE ONLY INCLUDED SERVICES. For Automotive this means they will no longer pay for services that are integral in maintaining a safe and operable facility. We now have to pay for the service for hazardous waste disposal which was costing about \$3,000 per quarter. For many years the college has used a company called Safety-Kleen for this service and along with hazardous waste disposal they also maintain the solvent tanks we use for cleaning large and small components. That burden has now been placed on our department so **THE DEPARTMENT CHAIR IS** requesting a budget augmentation so our department can still meet the state laws when it comes to hazardous waste disposal and still utilize some of the parts washers needed for lab instruction. There is also a four stage clarifier in Auto where all of the oils and fluids are collected from the various shops spaces. The clarifier is supposed to be pumped out on an annual basis and that has not been done according to our recent findings with Safety Kleen. The quote received for that is about \$3500. Therefore **THE DEPARTMENT CHAIR** would like to request an additional \$15,500 annually for these services.

What impact will this have on student success? What is the consequence of not getting this request fulfilled?

The consequence for not getting these services would be fines from LA County. All hazardous waste has to be disposed of properly and all Auto shops, even education facilities have to abide by the laws.

Facilities Resource Request(s):

The roof in the main building (AT-25) is still leaking and has caused thousands of dollars in damage to equipment and storage cabinets.

Priority:

1. Critical (mission critical or must have)
2. Important (creates value and efficiency for program)
3. It can wait (would be nice if the money is available)

This is critical unless the college wants to be liable for students, faculty, and staff being injured to due falling.

Cost estimate:

\$50,000

Occurrence:

- Recurring expense
- One-time augmentation

If this is done right then it should be a one time expense that will last decades.

Funding source:

- Instructional equipment
- Perkins
- Grants/contracts
- Vintage
- General fund (Program 100)
- Categorical – Equity
- Categorical – 3SP
- Categorical – Other
- Other funding

General Fund

Technology and Software Resource Request(s)

Identify and justify technology and software needs. Explain how it will help the program better meet its goals. If possible, indicate other disciplines who may share the technology and/or software.

No Value

What impact will this have on student success? What is the consequence of not getting this request fulfilled?

No Value

Technology and Software Resource Request(s):

No Value

Priority:

1. Critical (mission critical or must have)
2. Important (creates value and efficiency for program)
3. It can wait (would be nice if the money is available)

No Value

Cost estimate:

No Value

Occurrence:

- Recurring expense
- One-time augmentation

No Value

Funding source:

- Instructional equipment
- Perkins
- Grants/contracts
- Vintage
- General fund (Program 100)
- Categorical – Equity
- Categorical – 3SP
- Categorical – Other
- Other funding

No Value

Other Resource Request(s)

Identify and justify any other needs. Explain how it will help the program better meet its goals.

No Value

What impact will this have on student success? What is the consequence of not getting this request fulfilled?

No Value

Other Resource Request(s):

No Value

Priority:

1. Critical (mission critical or must have)
2. Important (creates value and efficiency for program)
3. It can wait (would be nice if the money is available)

No Value

Cost estimate:

No Value

Occurrence:

- Recurring expense
- One-time augmentation

No Value

Funding source:

- Instructional equipment
- Perkins
- Grants/contracts
- Vintage
- General fund (Program 100)
- Categorical – Equity
- Categorical – 3SP
- Categorical – Other
- Other funding

No Value

Prioritized Resource Request Recommendations : Version by **Mulleary, Joe** on **03/22/2023 04:29**

Resource request:	Priority:	Cost estimate:	Program goal alignment:
New roof in AT-25	Critical	\$50,000	Safety
Hazardous waste disposal	Critical	\$15,500	Safety

Career Technical Education (CTE) Supplemental Questions : Version by **Mulleary, Joe** on **03/22/2023 04:29**

How strong is the labor market demand for the program? Utilizing labor market data, describe changes in demand over the last six years and discuss the occupational outlook for the next six years.

The demand for Automotive Technicians is at a critical point nationally. There are more technicians aging out or leaving the field compared to young people entering. When you also take into account the increase in electric vehicles it means the cost of getting your vehicle repaired is continuing to go up. Most dealerships charge the customer close to \$200 per hour for mechanical labor and most increase the amount for working on electric vehicles.

The market share for electric vehicles in California is about 16% currently but that is only going to increase in the next six years. There has also been an increased demand for technicians who work on diesel engines and automatic transmissions because those are two niche areas when it comes to Automotive repair.

How does the program address needs that are not met by similar programs in the college's region/service area? Identify and describe any distinctive component of the program and/or unique contributions.

For several decades the Auto department at Cerritos College has been comprehensive in course and program offerings. We are the only college in Southern California to offer both a Ford ASSET program and a GM ASEP program. They both started in the 1980s at the college and also nationally and have set us apart from other local colleges who offer Auto.

Due to the success of the two programs several other vehicle manufacturers have approached us to become partners. They include Dodge, Jeep, Chrysler, Subaru, Nissan, Audi, and Mercedes. Recently we have shifted away from a cohort based program with the several brands listed above and instead have shifted the focus toward the General Technician pathway. The plan is to embed some technical training from the brands into our existing course offerings.

What is the success, completion, and employment rates for students in the program? Identify the standards set by the program for each metric and discuss any factors that may impact the metrics for students in the program. Based on the program's benchmarks, describe the status of any action plans for maintaining/improving the metrics.

The success rate is about 75% overall but our completion rates are low since many students value the skills they learn for a career over obtaining certificates or degrees. If the college finally modernized to an auto award system like many colleges our numbers would be solid. Our employment rates for students in Auto is very high at 86% for a three year average. We plan to include a work experience component into our General Technician program and that will further increase the employment rates for students.

List any licensure/certification exam(s) required for entry into the workforce in the field of study and report the most recent pass rate(s) among program graduates. Identify performance benchmarks set by regulatory agencies and based on the program's benchmarks, describe the status of any action plans for maintaining/improving the pass rates.

Our department has three separate national accreditations with the ASE Education Foundation. ASE stands for Automotive Service Excellence and in the field of Automotive in the United States it is the single standard when it comes to the workforce and education. Our accreditations are for General Technician, GM ASEP, and Ford ASSET.

Our three programs prepare students for success in the workforce and also for ASE examination. I do not have data on performance rates from students or recent graduates because we don't have a way of keeping track of it. Normally in the field you need a few years of working FT as a technician to be able to successfully pass the examinations.