



San Joaquin Delta College
Stockton CA 95207

June 2, 2015

To: Karri Hammerstrom, Chair, Central/Mother Lode Regional Consortium
From: Sharon Daegling, Curriculum Support Coordinator, San Joaquin Delta College
Subject: New CTE Program

San Joaquin Delta College is requesting approval by the Central/Mother Lode Regional Consortium for a new CTE program.

Included in this document please find the Narrative, Labor Market Information and Advisory Committee recommendations regarding the program listed below. Please email me at sdaegling@deltacollege.edu with any questions regarding the submission.

Thank you for your consideration.

Program Title:	Automotive Lubrication Technician
Program Proposal Type:	Career Technical Education (CTE)
Program Award Type:	Certificate of Achievement
Discipline Group	Automotive
Chair(s):	Craig McAlister
BOT Approval Date:	May 5, 2015

cc: Salvador Vargas, Dean, CTE and Workforce Development
Craig McAlister, Discipline Group Chair, Automotive

NARRATIVE

Program Title: Automotive Lubrication Technician, Certificate of Achievement

Item 1. Program Goals and Objectives

This entry level program meets a very strong market demand for an entry level semi-skilled technician with a minimum of training time. Previous students have shown successful job retention using similar training without completing a formal training path. This formalized certificate will better ensure the students that complete this certificate have the necessary skill set required for effective employment.

Upon successful completion of this program, the student will be able to:

1. Perform lubrication and oil services on vehicles meeting manufacturer's guidelines.
2. Utilize technical manuals and related publications in the repair of automotive systems.
3. Analyze and repair basic electrical circuits.
4. Analyze and repair automotive batteries, starters, and charging systems.
5. Analyze tire wear and directional control problems and perform necessary repairs on suspension systems.
6. Evaluate brake systems and perform necessary repairs.
7. Utilize a scan-tool to troubleshoot and repair code failures and read data from the computer management system.
8. Employ safe handling and preparation procedures for high voltage electrical vehicles.
9. Perform basic service on hybrid electrical drive vehicles.

Item 2. Catalog Description

The candidate successfully completing the Automotive Lubrication Technician Certification will qualify for entry-level employment at an automotive repair facility. Beginning technicians will obtain skills required to complete services and basic repairs with proficiency at lubrication service centers found at dealerships, high-volume lubrication service centers, and independent repair shops. The candidate will be proficient in the following: lubrication services; electrical repairs in the battery, starting, and charging systems; braking system repairs; tire and suspension repairs; and preliminary engine management diagnostics usually associated with these lubrication service facilities.

Item 3. Program Requirements

Requirements	Dept. Name/#	Name	Units	Year	Term
Required Core	AUTOMECH 072	Basic Brakes, Suspensions, Wheel Alignment, and Maintenance	3		
	AUTOMECH	Basic Engine Performance and	3		

	073	Electrical Systems			
	AUTOMECH 091	Starting, Charging, and Electrical Systems	6		
	AUTOMECH 092	Brakes, Suspension, and Steering	6		
	TOTAL UNITS		18		

Item 4. Master Planning

San Joaquin Delta College Board Policy 1201 (District Vision Statement) lists investment in career and technical education, and economic and workforce development as a guiding principle. The Educational Master Plan (2010, p. 7) includes career and technical programs that meet the labor market needs of employers in the region as one of the "strategic principles that should guide the decisions related to educational programs". In support of this valued principle, a new Automotive Lubrication Technician, certificate of achievement is proposed. This proposal is the result of a deficiency identified in the curriculum during Program Review and in meetings with the Automotive Advisory Group. The faculty and industry advisors agree that there is a need to create a pathway for entry level technicians to complete a program of courses that will allow them to enter the workforce in readily available jobs, for example, quick stop automotive shops. More importantly, this certificate serves as a building block for other stackable certificates that increase skill level and earning potential.

Based on 2014 Labor market information provided by Employment Development Department (EDD) of California the median wages for Automotive Service Technicians and Mechanics in San Joaquin County was \$37,190. In San Joaquin County, an average of 20 new job openings per year is expected for Automotive Service Technicians and Mechanics, plus an additional 27 job openings due to net replacement needs, resulting in a total of 47 job openings. With over 700 employers in the county, there are many opportunities for entry level automotive lubrication technician program completers.

Item 5. Enrollment and Completer Projections

		2012-2013		2013-2014	
CB01: Course Department Number	CB02: Course Title	Annual # Sections	Annual Enrollment Total	Annual # Sections	Annual Enrollment Total
AUTOMECH 072	Basic Brakes, Suspensions, Wheel Alignment, and Maintenance	3	58	5	128
AUTOMECH	Basic Engine	6	139	7	160

073	Performance and Electrical Systems				
AUTOMECH 091	Starting, Charging, and Electrical Systems	3	84	3	72
AUTOMECH 092	Brakes, Suspension, and Steering	2	48	2	52

Annual Completer projections – 5

Item 6. Place of Program in Curriculum/Similar Programs

This formalized certificate will better insure the students have the necessary skill set required for effective employment and will serve as the foundation for more advanced certificates and degrees in the Automotive program. The new program will utilize existing resources.

Item 7. Similar Programs at Other Colleges in Service Area

The program does not represent a duplication of other local programs.

Labor Market Information /Analysis

Program Title: Automotive Lubrication Technician, Certificate of Achievement

LMI Analysis:

As evidenced by the highlighted data below, job opportunities in this occupation will be best for individuals who complete training programs. When the applicant pool is sufficient, employers are most likely to hire entry level workers who have some prior knowledge and experience. The Automotive Lubrication Technician Certificate of Achievement is designed to meet that demand.

Beginning in 2014, Delta College counseling services have been strengthened to comply with 2012 Student Success Act (SSA) mandates. One of the major components of SSA requires documented educational planning for all students, including those in Career Technical Education (CTE) areas. Information regarding pathways that rely on "stackable" certificates is now readily available and systematically provided to students. Flexible module scheduling will also support students ability to take advantage of stackable certificates that allow them to move from entry level positions to advanced level, higher paying positions.

Below are excerpts (relevant sections have been highlighted) from the *California State of Employment Development Department (EDD) Occupational Guide for Automotive Service Technicians and Mechanics*:

Wages

The median wage in 2014 for Automotive Service Technicians and Mechanics in California was \$40,702 annually, or \$19.57 hourly. The median wage for Automotive Service Technicians and Mechanics in San Joaquin County was \$37,190 annually, or \$17.88 hourly. The median is the point at which half of the workers earn more and half earn less.

Annual Wages for 2014	Low (25th percentile)	Median (50th percentile)	High (75th percentile)
California	\$29,821	\$40,702	\$55,643
San Joaquin County	\$24,071	\$37,190	\$52,244

Source: EDD/LMID Occupational Employment Statistics Survey, 2014 at www.labormarketinfo.edd.ca.gov/?PageID=1009 Wages do not reflect self-employment.

Hourly Wages for 2014	Low (25th percentile)	Median (50th percentile)	High (75th percentile)
California	\$14.34	\$19.57	\$26.75
San Joaquin County	\$11.57	\$17.88	\$25.12

Source: EDD/LMID Occupational Employment Statistics Survey, 2014 at www.labormarketinfo.edd.ca.gov/?PageID=1009. Wages do not reflect self-employment.

What is the Job Outlook?

The need for Automotive Service Technicians will remain very strong as the number of vehicles in operation increases, reflecting the continued growth in the number of multi-car families. Job opportunities in this occupation are expected to be very good for persons who complete automotive training programs in high school, vocational and technical schools, or community colleges. Persons with good diagnostic and problem-solving abilities, and whose training includes basic electronics and computer courses, should have the best opportunities. However,

persons without formal automotive training are likely to face competition for entry-level jobs.

Additional job openings will be due to the need to replace a growing number of retiring technicians, who tend to be the most experienced workers.

Most persons who enter the occupation can expect steady work, even through downturns in the economy.

Employment growth will continue to be concentrated in automobile dealerships and independent automotive repair shops. Employment of automotive service technicians and mechanics in gasoline service stations will continue to decline, as fewer stations offer repair services.

Projections of Employment

In California, the number of Automotive Service Technicians and Mechanics is expected to grow at an average rate compared with the total for all occupations. Jobs for Automotive Service Technicians and Mechanics are expected to increase by 15.0 percent, or 9,600 jobs between 2012 and 2022.

In San Joaquin County, the number of Automotive Service Technicians and Mechanics is expected to grow at an average rate compared with the total for all occupations. Jobs for Automotive Service Technicians and Mechanics are expected to increase by 19.0 percent, or 200 jobs between 2010 and 2020.

Estimated Employment and Projected Growth Automotive Service Technicians and Mechanics					
Geographic Area (Estimated Year-Projected Year)	Estimated Employment	Projected Employment	Numeric Change	Percent Change	Additional Openings Due to Net Replacements
California (2012-2022)	64,200	73,800	9,600	15.0	16,200
San Joaquin County (2010-2020)	1,050	1,250	200	19.0	270

Source: EDD/LMID Projections of Employment by Occupation at www.labormarketinfo.edd.ca.gov/?PageID=1011

Annual Job Openings

In California, an average of 960 new job openings per year is expected for Automotive Service Technicians and Mechanics, plus an additional 1,620 job openings due to net replacement needs, resulting in a total of 2,590 job openings.

In San Joaquin County, an average of 20 new job openings per year is expected for Automotive Service Technicians and Mechanics, plus an additional 27 job openings due to net replacement needs, resulting in a total of 47 job openings.

Education, Training, and Other Requirements

Due to the complexity of today's automotive technology, most employers prefer to hire employees with a high school diploma who have completed a postsecondary vocational or community college automotive technician training program. Applicants must be physically able

to perform all phases of the work and have the ability to distinguish color differences. Many employers also require a valid California driver license because Automotive Technicians often test drive vehicles to diagnose mechanical problems.

What Employers Say...

The Employment Development Department surveyed 40 employers in San Joaquin County which employ 208 Automotive Service Technicians and Mechanics. Here's what they had to say:

About Full-Time/Part-Time: All of these firms employ full-time and some employ part-time Automotive Service Technicians and Mechanics.

About Work Experience: Of the 40 employers surveyed in San Joaquin County, almost all require new hires to have prior work experience as Automotive Service Technicians and Mechanics. In the table below, percentages may not add to 100% since employers may select more than one time period

How Much Work Experience Do Employers Require?	
More than 5 years	24%
25 to 60 months	32%
13 to 24 months	32%
1 to 12 months	13%

Source: EDD/LMID Local Occupational Information Survey, 2011

About Recruitment: Of the 40 employers surveyed in San Joaquin County, almost all indicate it is moderately difficult to find applicants with experience who meet their minimum hiring requirements, while many indicate it is easy to find applicants without previous experience who meet their minimum hiring requirements to fill vacancies for Automotive Service Technicians and Mechanics.

Estimated Average Annual Job Openings Automotive Service Technicians and Mechanics			
Geographic Area (Estimated Year- Projected Year)	Jobs From Growth	Jobs Due to Net Replacements	Total Annual Job Openings
California (2012-2022)	960	1,620	2,590
San Joaquin County (2010-2020)	20	27	47

Source: EDD/LMID Projections of Employment by Occupation at www.labormarketinfo.edd.ca.gov/?PageID=1011

Automotive Advisory Committee - May 2015

American Chevrolet 4742 McHenry Ave Modesto, CA 95356-9523	Mr. John Haley Service Manager
Berberian Motors (Mercedes)	Mr. Don Tomblin Service Manager
Big Valley Ford 3282 Auto Center Cir Stockton, CA 95212	
Brannon Tire 4905 Claremont Ave Stockton, CA 95207	Richard Perez
Bruce and Jacks Auto 12 East Poplar Street Stockton, CA 95202	Mr Paul LeBerge Owner
Bruce and Jacks Auto 12 East Poplar Street Stockton, CA 95202	Ms Michelle Miranda Owner
Cavallino Coachworks	Mr. Greg Campili Owner
Chase Chevrolet PO Box 8349 Stockton,CA95208-0349	Alex Robinson Service Manager
Chase Chevrolet PO Box 8349 Stockton,CA95208-0349	Mr. Peter Polk Service Assistant Manager
Chase Chevrolet PO Box 8349 Stockton,CA95208-0349	Mr. Matt Constant Service Assistant Manager
Chrysler Corporation	Mr. Stan Gozzi Area Service Manager
GPS Auto Solutions 1023 East Vine Street Lodi, CA 95240	Mr. Mike Poteet Owner
GPS Auto Solutions 1023 East Vine Street Lodi, CA 95240	Mr. Ian Strong Foreman
Jail Indus. Body Shop	Mr. Mario Rangel Technician
Peirano's Automotive 2700 Waterloo Road Stockton, CA 95202	Joey Peirano Owner
Sanborn Chevrolet	Mr. Jerry Curtis

1210 S. Cherokee Ln Lodi, CA 95241	Service Manager
SJDC Student Aid 5151 Pacific Ave Stockton, CA 95207	Mr. Joe Comeaux Student Aid PG&E Mech. Ret.
Smith Chevrolet 1601 Auto Mall Drive Turlock, CA 95380	Mr. Greg Watson Technician
Stockton Dodge, Chrysler, Jeep 3333 Auto Center Cir Stockton, CA 95212	
Stockton Honda 2002 E. Hammer Lane Stockton, CA 95210	Ryan Severson Service Manager
Stockton Hyundai 2979 Auto Center Cir Stockton, CA 95212	
Stockton Nissan 3077 E. Hammer Lane Stockton, CA 95212	Ron Aguiar Service Manager
Toyota Town 2150 E. Hammer Lane Stockton, CA 95210	Mr Steve Heminger Chairman Service Manager
Tracy Chevrolet 3400 Auto Plaza Way Tracy, CA 95304	Jonathan Camberlin 3117 Otto Dr. Stockton, CA 95209 Technician
	Mr. Phil Stokes
	Mr. David Alexander
	Mr. Lino Buhagian Owner

GM ASEP Advisory Committee

Meeting Minutes December 5, 2012

Members attending: Andrew Pollino, Steve Heminger, John Haley, Joe Comeaux, Ian Strong, Greg Watson, Juan Hernandez, Mario Rangel, Gillian Murphy, Larry Mariani, Craig McAlister, Mike Burkhardt, Caesar Jimenez.

Review minutes:

John Haley approved, Ian Strong Second approval

Introduction to Dean Gillian Murphy:

Gillian introduced herself and explained her direction for the next few months and become knowledgeable of our overall division.

Discuss equipment received and any old business:

Craig described the received equipment for the auto program; 6 battery analyzers, an aamco brake lathe, 10 Solus ultras with euro software, hand tools, torque wrenches in the automotive area.

Larry described received equipment for the auto-body program; frame straightening rack, Chief three tower and Velocity Measuring System

Larry described his continued concerns of the lack of electrical power to support the welders and other electrical equipment that is currently being “juggled” in his facility so that the students can utilize the equipment we have purchased.

Heminger reminds the recommendation of purchasing an auxiliary generator to cover the lack of power. Members question the reason the power has not been brought up to the levels needed. Murphy says she will be looking into the issue.

Upcoming new and future direction for CTE :

McAlister says special Populations are not only women this includes people that are under represented, Murphy advises looking into alternative areas that women can work in. Heminger mentions service advisors are an excellent area for women to be involved with. Murphy says there could be a certificate for service writers.

Discussion includes issue of students that have difficulties reading or writing.

Suggestion of enhancing reading and writing skills was recommended by Burkhardt. Heminger recommends using advanced technology to serve these students and promote their job searches through the use of websites. Pollino agrees the website could make it easier for prospective employers to advertise and seek possible candidates for positions in shops. McAlister says Butte College uses a

website to allow managers to select prospective employees from biographies and photos listed on their automotive page. Mariani adds the website could be used to showcase student projects and show the progression of these projects adding to the communication skills of the student.

Jimenez recommends to purchase several transmission mounts along with torque to yield wrenches and various driver tools to support transmission repair Haley suggests this is required for today's transmissions.

McAlister asks members about advanced diagnostic tools for electrical, engine performance areas, transmission and brakes areas. Ian Strong recommends to look into several diagnostic tools that are needed. Watson states he uses many electronic tools to perform daily functions including the new tire pressure monitoring tools just to rotate tires. McAlister mentions the partnership with Snap-On to train technicians with updated equipment not just for college level students but for community members for updated technical training on the latest type of equipment, procedures and vehicles.

Mariani indicates powder coating equipment is making a large impact on today's painting technology. Comeaux states this is the way to go, more durable and it is much safer for the environment. Rangel mentions this is what many vehicle restoration people are using to complete many of the usually painted surfaces on the frame and under the vehicle.

McAlister asks what the shops are doing about vehicle and tool safety? Pollino states their shop parks vehicles inside at night. Strong agrees most customer vehicles are parked inside at night. Heminger mentions camera technology is so common today that it is just a natural way to monitor the facility both inside and outside the shop.

New curriculum and future updates:

Snap-On training for community outreach and support.

Step into certificate for the beginning level technician lubrication technician.

Members all approve of these two directions of new curriculum.

ASE testing center/site:

Mariani discusses likely possibility, limited computer room for 50 students.

Location for ASE is ideal at Delta. Currently the only time of day is during work hours. Students need the ability to access testing. We need to refresh the interest in ASE testing here at Delta. McAlister mentions he took his ASE tests here at Delta in 1984 since then usually 600 technicians have tested at Delta two times per year. It would be very unfortunate to lose our community influence after that many years, just because the process has become a high technology testing process.

Haley says there is a huge need for a testing facility here in this section of the Valley. Columbia College is just too small to support the ASE testing process. All members recommend further study into securing a testing site or center.

December's Tune in/ Tune up:

Valley CAN (Clean Air Now) 525 cars tested and processed during the one day event twenty students and instructors participated in the event. Students received compensation and the program will receive dollars to purchase equipment to train students to clean the air. Members suggest to possibly give students vouchers for books rather than direct payment for the day. Members agree this is good for the students program and the community.

Instructor training:

International Conference GMASEP Detroit (Oct 21-24) McAlister attended and gave a short overview of the conference.

G.M-(Burbank May 20-25)McAlister, Jimenez, and Burkhardt attended conference and completed three days of training.

SEMA (October 29-Nov 2) Mariani attended and gave an overview of what he saw and some of the bargains he obtained for the college.

CAT- Spring McAlister will attend the Spring conference Luna has also indicated he will attend.

Smog Update (July 2012) Luna attended and will give 2013 update training, McAlister will need to attend Luna's update course.

CCCAOE, Long Beach (October, Oct 17-19, 2012) Luna and Mariani attended meeting, Mariani gave a short overview of the conference.

Good of the order:

Tesla Motors; Mariani outlined his involvement with Tesla and is looking forward to placing even more students with their business.

Nash Metropolitan Project with Haggin Museum and Discovery Channel; Mariani is heading the project students are restoring the vehicle for the Museum to raffle the vehicle for a fund raiser.

Murphy suggests our meetings more closely meet the published time for adjournment.

Next meeting Wednesday May 9, 2013

Adjournment 8:05