AUTOMOTIVE PROGRAM HANDBOOK

Table of Contents

AUTOMOTIVE TECHNOLOGY DEPARTMENT STAFF

Name	Position	Email	Qualifications
Brian Hagopian	Coordinator, Full-time Professor	bhagopian@laspositascollege.edu	A.S. Automotive Technology Fresno City College B.A. Organizational Management Ashford university 30+ years Automotive Shop Experience Master ASE Technician A1-A9 Advanced ASE L1 Electronic Diesel ASE L2 Alternative Fuels and Hybrid ASE L3 General Service Technician ASE G1 Compressed Natural Gas Vehicle ASE F1 Mechanical and Electrical Body ASE B5 Heavy Duty Truck Gasoline Engines ASE T1 Heavy Duty Truck Diesel Engines ASE T2 Heavy Duty Truck Drive Train ASE T3 Heavy Duty Truck Electrical/Electronic Systems ASE T6 Truck Equipment Electrical/Electronic Systems ASE E1 Exhaust Specialist ASE X1 Parts Specialist ASE P1 Service Consultant ASE C1 Member SAE and SEMA General Motors World Class Technician Isuzu Master Elite Technician California Smog Inspector California Smog Repair Technician California Smog Instructor Mike Rowe Works Ethics Certification HVAC 609 Certified I-Car Certified ACDelco Certified ACDelco Certified Instructor Midas Certified Instructor Certified Hybrid /Alternative Fuels / Electric Vehicle Trainer Tesla Emergency Response NC3 Certified in Zeus, Oscilloscopes, Verus Edge, Shop Key, Precision Measurement, Torque, TPMS, Procut, B2000P, T7800, Pro X, and Multimeters

James Weston	Adjunct Professor, Laboratory Technician	jweston@laspositascollege.edu	30+ Automotive Shop Experience ASE Technician A1, A2, A3, A8, A8 Advanced ASE L1 ASE National Award Winner- 2008 Technician of the Future California Smog Inspector California Smog Repair Technician California Smog Instructor NC3 Certified in Torques, Multimeter, and Precision Measurement
Delbert Wimmer	Adjunct Professor	dwimmer@laspositascollege.edu	30+ Automotive Shop Experience Master ASE Technician A1-A9 Advanced ASE L1 Electronic Diesel ASE L2 Alternative Fuels and Hybrid ASE L3 General Service Technician ASE G1 Parts Specialist ASE P2 Service Consultant ASE C1 General Motors World Class Technician California Smog Instructor HVAC 609 Certified

Automotive Technology Website:

http://www.laspositascollege.edu/auto/

Program Description

The Automotive Technology curriculum is designed to prepare students for employment as automotive technicians. Students also may choose to work in other areas of the automotive trade, such as parts sales, service management, fleet service, etc. In addition, AS degree graduates may continue toward a Baccalaureate degree in other advanced schools of technology in preparation for future management and teaching careers in the automotive industry.

The Las Positas College AUTO program is certified by the ASE Educational Foundation as a Master Certified program January 23, 2020.

Instruction covers safety, trade ethics, use of hand and power tools, as well as the theory, repair and testing of automobiles and their components. Special emphasis is placed on the diagnosis and repair of electronic and computer control systems in late model automobiles.

AUTO Degrees and Certificates

Latest update located here: http://www.laspositascollege.edu/auto/program.php

Students are eligible for graduation upon satisfactory completion of the required course work leading to an Associate degree in Automotive Technology. A minimum grade point average of 2.0 is required. Courses in the major must be completed with a grade of "C" or better. At least 18 of the required units must be completed at Las Positas College. The requirements for the Associate degree include:

All classes listed in Certificate Requirements (see below) At least one class in each of the

following areas:

Natural Science

Language and Rationality

Social and Behavioral Science

Ethnic Studies Humanities

Students should consult with a counselor to help select specific courses to meet these requirements.

Automotive Alternative Fuels/Hybrid Technology - A.S. - Associate of Science Degree

Course Sequence

Required Core: (44 Units)		Units
AUTO INTR	Automotive Service and Introduction	4
AUTO LABA	Automotive Lab	2
AUTO A1	Engine Repair	4
AUTO A2	Automatic Transmission/Transaxle	4
AUTO A3	Manual Drive Train and Axles	4
AUTO A4	Suspension and Steering	4
AUTO A5	Brakes	4
AUTO A6	Electrical/Electronic Systems	5
AUTO A7	Automotive Heating and Air Conditioning	4
AUTO A8	Engine Performance	5
AUTO L3	Light Duty Hybrid/Electric Vehicles	4

Total Units for the Major Units 44

Program-Based GE: Select One (3 Units)		Units
CMST 1	Fundamentals of Public Speaking	3
CMST 10	Interpersonal Communication	3

Additional General Education and Elective Units 16

Total Units **63**

PID 674

Automotive Light Duty Diesel - A.S. - Associate of Science Degree

Course Sequence

Required Core: (44 Units)		Units
AUTO INTR	Automotive Service and Introduction	4
AUTO LABA	Automotive Lab	2
AUTO A1	Engine Repair	4
AUTO A2	Automatic Transmission/Transaxle	4
AUTO A3	Manual Drive Train and Axles	4
AUTO A4	Suspension and Steering	4
AUTO A5	Brakes	4
AUTO A6	Electrical/Electronic Systems	5
AUTO A7	Automotive Heating and Air Conditioning	4
AUTO A8	Engine Performance	5
AUTO A9	Light Vehicle Diesel Engines	4

Total Units for the Major Units 44

Program-Based GE Requirement: Select One (3 Units)		Units
CMST 1	Fundamentals of Public Speaking	3
CMST 10	Interpersonal Communication	3

Additional General Education and Elective Units Units 16

Total Units **63**

PID 819

Automotive Electronics Technology - A.S. - Associate of Science Degree

Course Sequence

Required Core: (40 Units)		Units
AUTO INTR	Automotive Service and Introduction	4
AUTO LABA	Automotive Lab	2
AUTO A1	Engine Repair	4
AUTO A2	Automatic Transmission/Transaxle	4
AUTO A3	Manual Drive Train and Axles	4
AUTO A4	Suspension and Steering	4
AUTO A5	Brakes	4
AUTO A6	Electrical/Electronic Systems	5
AUTO A7	Automotive Heating and Air Conditioning	4
AUTO A8	Engine Performance	5

List A: Select One (5 Units)		Units
AUTO L1	Advanced Engine Performance	5
AUTO SDR	Specified Diagnostic and Repair	5

Total Units for the Major **Units** 45

Program-Based GE: Select One (3 Units)		Units
CMST 1	Fundamentals of Public Speaking	3
CMST 10	Interpersonal Communication	3

Additional General Education **Units** 16

Total Units **64**

PID 878

Automotive Master - A.S. - Associate of Science Degree

Course Sequence

Required Core: (65.5 Units)

		Units
AUTO A1	Engine Repair	4
AUTO A2	Automatic Transmission/Transaxle	4
AUTO A3	Manual Drive Train and Axles	4
AUTO A4	Suspension and Steering	4
AUTO A5	Brakes	4
AUTO A6	Electrical/Electronic Systems	5
AUTO A7	Automotive Heating and Air Conditioning	4
AUTO A8	Engine Performance	5
AUTO A9	Light Vehicle Diesel Engines	4
AUTO INTR	Automotive Service and Introduction	4
AUTO LABA	Automotive Lab	2
AUTO LABB	Automotive Lab Advanced	2
AUTO L1	Advanced Engine Performance	5
AUTO L1L2	Smog Level One and Level Two	5.5
AUTO L3	Light Duty Hybrid/Electric Vehicles	4
AUTO SDR	Specified Diagnostic and Repair	5

	Units
Total Units for the Major	65.5

Program-Based GE: Select One (3 Units)		**Units**
CMST 1	Fundamentals of Public Speaking	3
CMST 10	Interpersonal Communication	3

Additional General Education and Elective Units	**16**

Total Units	**84.5**

PID 822

Automotive Smog Technician - A.S. - Associate of Science Degree

Course Sequence

Required Core: (46.5 Units)		**Units**
AUTO INTR	Automotive Service and Introduction	4
AUTO A1	Engine Repair	4
AUTO A2	Automatic Transmission/Transaxle	4
AUTO A3	Manual Drive Train and Axles	4
AUTO A4	Suspension and Steering	4
AUTO A5	Brakes	4
AUTO A6	Electrical/Electronic Systems	5
AUTO A8	Engine Performance	5
AUTO LABA	Automotive Lab	2
AUTO L1L2	Smog Level One and Level Two	5.5
AUTO SDR	Specified Diagnostic and Repair	5
	Total Units for the Major	**Units** 46.5

Program-Based GE: Select One (3 Units)		**Units**
CMST 1	Fundamentals of Public Speaking	3
CMST 10	Interpersonal Communication	3
	Additional General Education and Elective Units	**Units** 16

Total Units **65.5**

PID 815

Automotive Chassis - A CA - Certificate of Achievement (16 to fewer than 60 semester units)

REQUIRED CORE: (23 units)		Units
AUTO INTR	Automotive Service and Introduction	4
AUTO LABA	Automotive Lab	2
AUTO A4	Suspension and Steering	4
AUTO A5	Brakes	4
AUTO A6	Electrical/Electronic Systems	5
AUTO A7	Automotive Heating and Air Conditioning	4
Total Units		**23**

PID 411

Automotive Light Duty Diesel - A CA - Certificate of Achievement (16 to fewer than 60 semester units)

Required Core: (33 Units)		Units
AUTO INTR	Automotive Service and Introduction	4
AUTO LABA	Automotive Lab	2
AUTO A1	Engine Repair	4
AUTO A2	Automatic Transmission/Transaxle	4
AUTO A6	Electrical/Electronic Systems	5
AUTO A8	Engine Performance	5
AUTO A9	Light Vehicle Diesel Engines	4
AUTO L1	Advanced Engine Performance	5
Total Units		**33**

PID 817

Automotive Drivability - A CA - Certificate of Achievement (16 to fewer than 60 semester units)

REQUIRED CORE: (29 units)		Units
AUTO INTR	Automotive Service and Introduction	4
AUTO LABA	Automotive Lab	2
AUTO A1	Engine Repair	4
AUTO A6	Electrical/Electronic Systems	5
AUTO A8	Engine Performance	5
AUTO L1	Advanced Engine Performance	5
AUTO L3	Light Duty Hybrid/Electric Vehicles	4

Total Units **29**

PID 412

Automotive Alternative Fuels/Hybrid Technology - A CA - Certificate of Achievement (16 to fewer than 60 semester units)

Required Core: (28 Units)		**Units**
AUTO INTR	Automotive Service and Introduction	4
AUTO LABA	Automotive Lab	2
AUTO A1	Engine Repair	4
AUTO A2	Automatic Transmission/Transaxle	4
AUTO A6	Electrical/Electronic Systems	5
AUTO A8	Engine Performance	5
AUTO L3	Light Duty Hybrid/Electric Vehicles	4

Total Units **28**

PID 818

Automotive Master - A CA - Certificate of Achievement (16 to fewer than 60 semester units)

Required Core: (60 Units)		Units
AUTO INTR	Automotive Service and Introduction	4
AUTO LABA	Automotive Lab	2
AUTO LABB	Automotive Lab Advanced	2
AUTO L1	Advanced Engine Performance	5
AUTO L3	Light Duty Hybrid/Electric Vehicles	4
AUTO SDR	Specified Diagnostic and Repair	5
AUTO A1	Engine Repair	4
AUTO A2	Automatic Transmission/Transaxle	4
AUTO A3	Manual Drive Train and Axles	4
AUTO A4	Suspension and Steering	4
AUTO A5	Brakes	4
AUTO A6	Electrical/Electronic Systems	5
AUTO A7	Automotive Heating and Air Conditioning	4
AUTO A9	Light Vehicle Diesel Engines	4
AUTO A8	Engine Performance	5
Total Units		**60**

PID 821

Automotive Mechanical - A CA - Certificate of Achievement (16 to fewer than 60 semester units)

Required Core: (23 Units)		Units
AUTO INTR	Automotive Service and Introduction	4
AUTO LABA	Automotive Lab	2
AUTO A1	Engine Repair	4
AUTO A2	Automatic Transmission/Transaxle	4
AUTO A3	Manual Drive Train and Axles	4
AUTO A6	Electrical/Electronic Systems	5

Total Units **23**

PID 814

Automotive Smog Technician - A CA - Certificate of Achievement (16 to fewer than 60 semester units)

Required Core: (29.5 Units)		Units
AUTO INTR	Automotive Service and Introduction	4
AUTO LABA	Automotive Lab	2
AUTO A1	Engine Repair	4
AUTO A2	Automatic Transmission/Transaxle	4
AUTO A6	Electrical/Electronic Systems	5
AUTO L1L2	Smog Level One and Level Two	5.5
AUTO SDR	Specified Diagnostic and Repair	5

Total Units **29.5**

PID 820

Automotive Hands On Experience - Certificate of Completion (Noncredit CDCP)

Required Core: (12 Units)

		Units
AUTO INTR	Automotive Service and Introduction	4
AUTO LABA	Automotive Lab	2
AUTO LABB	Advanced Automotive Lab	2
AUTO LABC	Automotive Lab Specialized Bench Work	2
AUTO LABD	Automotive Lab Specialized Electronic Work	2

Total Hours **12**

PID 880

AUTO Courses

Latest update located here: http://www.laspositascollege.edu/auto/classes.php

Automotive learning strategy:

We have learned more than we could have bargained for during Covid. One of the main points is the teaching and learning must have theory and hands-on. Theory/lecture can be delivered in any format. Hands-on must be in person and live. Because of this and our commitment to the environment and student learning, the Las Positas College Automotive program will be hybrid learning into the future.

What does this mean to the student? Flexibility and more learning opportunities.

Automotive classes will have a theory/lecture portion that will be online. Courses other than the introductory class will be asynchronous. Asynchronous means live participation is encouraged but not a requirement. A recording will be available. This will free up time for students to take other classes or work. Hands-on labs will be offered and part of every class. Coming to campus for labs is a requirement, but we have scheduled this to be two days a week. Wednesday and Thursday hand-on labs are offered. Once again, this will free up the student's time to have other options with their time. It will also lower our carbon footprint as we will not have students coming top campus four to five days a week. We took our cue from the hybrid and EV technologies in cars and have grown/changed with the times.

AUTO INTR - Automotive Service and Introduction

4 units

Bumper-to-Bumper Automotive Knowledge. Starting with hazardous waste handling, tool identification, maintenance and lubrication, moving into engine mechanical, emissions controls, suspension systems, air conditioning, air bags and safety, transmissions, axels, and finishing off with the future of the automotive industry. This is an introductory class for people who want to know more about their vehicle or who are planning an automotive career. 36 hours lecture, 108 hours laboratory.

1 Transfer: CSU.

2 Degree Applicable, Credit Grading Option: OP

AUTO INTZ - AUTOMOTIVE SERVICE AND INTRODUCTION LECTURE

2 Units

This class is lecture only, AUTO INTL must also be taken concurrently. Bumper-to-Bumper Automotive Knowledge. Starting with hazardous waste handling, tool identification, maintenance, and lubrication, moving into engine mechanical, emissions controls, suspension systems, air conditioning, airbags and safety, transmissions, axles, and finishing off with the future of the automotive industry. This is an introductory class for people who want to know more about their vehicle or who are planning an automotive career. 36 hours lecture.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO INTL - AUTOMOTIVE SERVICE AND INTRODUCTION HANDS-ON LAB

2 Units

This is the Lab section that can only be taken if you are also taking INTZ. Bumper-to-Bumper Automotive Knowledge. Starting with hazardous waste handling, tool identification, maintenance and lubrication, moving into engine mechanical, emissions controls, suspension systems, air conditioning, airbags and safety, transmissions, axles, and finishing off with the future of the automotive industry. This is an introductory class for people who want to know more about their vehicle or who are planning an automotive career. 108 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO A1 - Engine Repair

4 units

An in depth study of engines: mechanical, measurement, and assembly. A study of the above-mentioned components including theory, teardown, evaluate, qualifying, and rebuilding. This class' emphasis is on engines. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: AUTO INTR with a minimum grade of C (May be taken concurrently). 36 hours lecture, 108 hours laboratory.

1. Transfer: CSU.
2. Degree Applicable, Credit Grading Option: OP

AUTO A2 - Automatic Transmission/Transaxle

4 units

An in depth study of engine, transmission, transaxles: mechanical, measurement, and assembly. An in-depth study of the above mentioned components including theory, teardown, evaluate, qualifying, and rebuilding. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: AUTO INTR with a minimum grade of C (May be taken concurrently). 36 hours lecture, 108 hours laboratory.

1. Transfer: CSU.
2. Degree Applicable, Credit Grading Option: OP

AUTO A3 - Manual Drive Train and Axles

4 units

An in-depth study of rear axle, front axle, and transfer cases: mechanical, measurement, and assembly. Including theory, teardown, qualifying, and rebuilding. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: AUTO INTR with a minimum grade of C (May be taken concurrently). 36 hours lecture, 108 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO A4 - Suspension and Steering

4 units

Diagnosis, evaluation, testing, adjustment, alignment and repair of steering and suspension systems. Including all common automotive steering and suspension systems both car and truck. Future systems will also be covered. Students are strongly recommended to enroll in Automotive Lab concurrently. Prerequisite: AUTO INTR with a minimum grade of C (May be taken concurrently). 36 hours lecture, 108 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO A5 - Brakes

4 units

Diagnosis, evaluation, inspection, adjustment, and repair of braking, antilock braking systems, traction control and related devices. Class will involve California State law regarding brake and safety inspections. Includes the material on the California Brake Adjuster's Licensing Examination. Students are strongly recommended to enroll in Automotive Lab concurrently. Prerequisite: AUTO INTR with a minimum grade of C (May be taken concurrently). 36 hours lecture, 108 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO A6 - Electrical/Electronic Systems

5 units

Automotive electrical/electronic systems, including electrical circuits, ohms law, battery, starting, charging, ignition, fuel, accessories, brakes, chassis, suspension, steering, HVAC and wiring systems. Emphasis on diagnosis of electrical troubles, assembly, and repair of components and diagnostic equipment usage. Students are strongly recommended to enroll in Automotive Lab concurrently. Prerequisite: AUTO INTR with a minimum grade of C (May be taken concurrently). 54 hours lecture, 108 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO A7 - Automotive Heating and Air Conditioning

4 units

Diagnosing, evaluation, testing, adjustment, and repair of heating, ventilation and air conditioning (HVAC). Includes heat and energy, psychometrics, air flow, refrigerant recycling, equipment and controls. Student will be prepared to pass a nationally recognized HAVC certificate program, required by all California HVAC repair shops. Students are strongly recommended to enroll in Automotive Lab concurrently. Prerequisite: AUTO INTR with a minimum grade of C (May be taken concurrently). 36 hours lecture, 108 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO A8 - Engine Performance

5 units

Principles of automotive fuel induction, ignition and emission control systems, including inspection, diagnosis and repair of fuel and emission control systems/components governed by federal and state laws and standards. Electrical diagnosis of emission control systems. Relation of chassis and body systems to emissions. Students are strongly recommended to enroll in Automotive Lab concurrently. Prerequisite: AUTO INTR with a minimum grade of C (May be taken concurrently). 54 hours lecture, 108 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO A9 - Light Vehicle Diesel Engine

4 units

An in depth study of diesel engines: mechanical, measurement, and assembly. A study of the above mentioned components including theory, teardown, evaluate, qualifying, and rebuilding. Diesel engine performance including emissions, turbos, exhaust and intake systems. This class' emphasis is on diesel engines and diesel engine performance/emissions. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: AUTO INTR with a minimum grade of C (may be taken concurrently). 36 hours lecture, 108 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO LABA - Automotive Lab

2 units

Automotive Lab is an open laboratory class for basic automotive students. This class is for students desiring to expand their hands-on experience using their own vehicle. Instructor will provide technical and supervisory support to guide students in completion of their self initiated projects. Service information via computer service manuals will be available for students to use for vehicle information and research. Prerequisite: AUTO INTR with a minimum grade of C (May be taken concurrently). 108 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO LABB - Automotive Lab Advanced

2 units

Automotive Lab Advanced is an open laboratory class for advanced automotive students. Th is class is for students desiring to expand their hands-on experience using their own vehicle. Instructor will provide technical and supervisory support to guide students in completion of their self initiated projects. Students are expected to help others in class and be able to work without guidance. Service information via computer service manuals will be available for students to use for vehicle information and research. Class is recommended for second year students only. Prerequisite: AUTO LABA with a minimum grade of C and AUTO INTR with a minimum grade of C. 108 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO LABC - Automotive Lab Specialized Bench Work

2 Units

Automotive Lab Advanced is an open laboratory class for automotive students. This class is for students desiring to expand their hands-on experience using shop equipment. This class specializes in rebuilding automotive parts. The instructor will provide technical and supervisory support to guide students in the completion of their self-initiated projects. Service information via computer service manuals will be available for students to use for vehicle information and research. Class is recommended for second year students only.

- Transfer: CSU.

- Degree Applicable, Credit Grading Option: OP

AUTO LABD - Automotive Lab Specialized Electronic Work

2 Units

Automotive Lab Advanced is an open laboratory class for automotive students. This class is for students desiring to expand their hands-on experience using shop equipment. This class specializes in electronics work. This includes accessories, EV, hybrid, and aftermarket electrical. The instructor will provide technical and supervisory support to guide students in the completion of their self-initiated projects. Service information via computer service manuals will be available for students to use for vehicle information and research.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO L1 - Advanced Engine Performance

5 units

Continuation of Automotive Technology A6 and A8 with an emphasis on diagnosis of electronic problems including computer controlled circuits/systems using schematics, diagnostic procedures and equipment. Students are strongly recommended to enroll in Automotive Lab concurrently. Prerequisite: AUTO A6 with a minimum grade of C (may be taken concurrently) or AUTO A8 minimum grade of C (may be taken concurrently). 54 hours lecture, 108 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO L3 - Light Duty Hybrid/Electrical Vehicles

4 units

A study in the history, current and future of alternative fuels, hybrids and electric vehicles in the automotive industry. Emphasis in shop safety, hazardous waste handling, high voltage electrical precautions, basic engine construction of hybrids, battery storage systems, fuel storage systems, compressed natural gas, liquid propane gas, bio-diesel and hydrogen cell technology. Students are strongly recommended to enroll in Automotive Lab concurrently. Prerequisite: AUTO INTR with a minimum grade of C (May be taken concurrently). 36 hours lecture, 108 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO P1 - Powertrains: Modifications for Performance

4 units

An in-depth study of engine and transmission modifications made in order to improve performance. This class will explain the differences in laws governing vehicles in all fifty states including those registered in California; how to improve performance legally; and the penalties of breaking the law. Students will learn to calculate the benefit versus cost of bolt-on performance products and major engine or transmission modifications. NOTE: Some modifications are intended for off-road applications only. Students are encouraged to enroll in Automotive Lab concurrently. Prerequisite: AUTO INTR with a minimum grade of C. 54 hours lecture, 54 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO C1 - Automobile Service Consultant

4 units (currently under review for DE offering)

Automotive Service Consultant fundamentals including: Communications, customer service, legal documents, business interactions, billing, parts and labor guides, shop management applications, shop operations, sales, vehicle identification and systems operations. Course content is aligned with tasks identified by Automotive Service Excellence (ASE) certification. Student is advised to take Auto LABA concurrently. Prerequisite: AUTO INTR with a minimum grade of C (may be taken concurrently). 45 hours lecture, 81 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO L1L2 - Smog Level One and Level Two

5.5 units

This class includes classes/modules the State of California requires for a student/automotive technician to be prepared to take their Smog License Test. This class will include Level One and Level Two smog training only. At the end of the class students may or may not qualify for either EI or EO smog license, See www.smogcheck.ca.gov for more information. 90 hours lecture, 27 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

AUTO SDR - Specified Diagnostic and Repair

5 units

This is a Bureau of Automotive Repair approved alternative to the ASE A6, A8 and L1 certification required for obtaining and maintaining smog technician licenses. Th is course will follow BAR guidelines for smog license prep. Student may or may not qualify for license exam after taking this class. For more information see www.smogcheck.ca.gov. 72 hours lecture, 54 hours laboratory.

- Transfer: CSU.
- Degree Applicable, Credit Grading Option: OP

NON-Credit Automotive Classes

Latest update located here: http://www.laspositascollege.edu/auto/noncredit.php

NAUT INTR - AUTOMOTIVE SERVICE AND INTRODUCTION

Bumper-to-Bumper Automotive Knowledge. Starting with hazardous waste handling, tool identification, maintenance and lubrication, moving into engine mechanical, emissions controls, suspension systems, air conditioning, airbags and safety, transmissions, axles, and finishing off with the future of the automotive industry. This is an introductory class for people who want to know more about their vehicle or who are planning an automotive career.

NAUT LABA - AUTOMOTIVE LAB

Automotive Lab is an open laboratory class for basic automotive students. This class is for students desiring to expand their hands-on experience using their own vehicle. Instructor will provide technical and supervisory support to guide students in completion of their self initiated projects. Service information via computer service manuals will be available for students to use for vehicle information and research.

NAUT LABB - AUTOMOTIVE LAB ADVANCED

Automotive Lab Advanced is an open laboratory class for advanced automotive students. This class is for students desiring to expand their hands-on experience using their own vehicle. Instructor will provide technical and supervisory support to guide students in completion of their self initiated projects. Students are expected to help others in class and be able to work without guidance. Service information via computer service manuals will be available for students to use for vehicle information and research. Class is recommended for second year students only.

NAUT LABC - Automotive Lab Specialized Bench Work

Automotive Lab Advanced is an open laboratory class for automotive students. This class is for students desiring to expand their hands-on experience using shop equipment. This class specializes in rebuilding automotive parts. The instructor will provide technical and supervisory support to guide students in the completion of their self-initiated projects. Service information via computer service manuals will be available for students to use for vehicle information and research. Class is recommended for second year students only.

NAUT LABD - Automotive Lab Specialized Electronic Work

Automotive Lab Advanced is an open laboratory class for automotive students. This class is for students desiring to expand their hands-on experience using shop equipment. This class specializes in electronics work. This includes accessories, EV, hybrid, and aftermarket electrical. The instructor will provide technical and supervisory support to guide students in the completion of their self-initiated projects. Service information via computer service manuals will be available for students to use for vehicle information and research.

NAUT SDR - SPECIFIED DIAGNOSTIC AND REPAIR

This is a Bureau of Automotive Repair approved alternative to the ASE A6, A8 and L1 certification required for obtaining and maintaining smog technician licenses. This course will follow BAR guidelines for smog license prep. Student may or may not qualify for license exam after taking this class. For more information see www.smogcheck.ca.gov

NAUT L1L2 - SMOG LEVEL ONE AND LEVEL TWO

This course includes classes/modules the State of California's requires for a student/automotive technician to be prepared to take their Smog License Test. This class will include Level One and Level Two smog training only. At the end of the class students may or may not qualify for either EI or EO smog license. See www.smogcheck.ca.gov for more information.

NAUT ASMC - AUTOMOTIVE SUMMER CAMP

Have you ever wanted to know more about your car but do not have time to take an 18-week course? Have you ever wanted to change your own oil? Learn what the cryptic code on the tire means? Learn general knowledge about cars? This
is the class for you! From maintenance to oil changes to tires to smog to hybrids to jump starting. Speaking of jump starting, let's start! There is a lab section that follows the lecture section for students to gain hands-on experience.

NAUT ASCL - AUTOMOTIVE SUMMER CAMP HANDS ON

This is the hands-on lab section of the Automotive Summer Camp! To enroll in this class you must first be enrolled in Automotive Summer Camp (ASMC). Have you ever wanted to know more about your car but do not have time to take an
18-week course? Have you ever wanted to change your own oil? Learn what the cryptic code on the tire means? Learn general knowledge about cars? This is the class for you! From maintenance to oil changes to tires to smog to hybrids to jump starting. Speaking of jump starting, let's start!

NAUT A1 - ENGINE REPAIR

An in depth study of engines: mechanical, measurement, and assembly. A study of the above mentioned components including theory, teardown, evaluate, qualifying, and rebuilding. This class' emphasis is on engines. Students are encouraged to enroll in Automotive Lab concurrently.

NAUT A2 - AUTOMATIC TRANSMISSION/TRANSAXLE

An in depth study of engine, transmission, transaxles: mechanical, measurement, and assembly. An in-depth study of the above mentioned components including theory, teardown, evaluate, qualifying, and rebuilding. Students are encouraged to enroll in Automotive Lab concurrently

NAUT A3 - MANUAL DRIVE TRAIN AND AXLES

An in-depth study of rear axle, front axle, and transfer cases: mechanical, measurement, and assembly. Including theory, teardown, qualifying, and rebuilding. Students are encouraged to enroll in Automotive Lab concurrently.

NAUT A4 - SUSPENSION AND STEERING

Diagnosis, evaluation, testing, adjustment, alignment and repair of steering and suspension systems. Including all common automotive steering and suspension systems both car and truck. Future systems will also be covered. Students are strongly recommended to enroll in Automotive Lab concurrently.

NAUT A5 - BRAKES

Diagnosis, evaluation, inspection, adjustment, and repair of braking, antilock braking systems, traction control and related devices. Class will involve California State law regarding brake and safety inspections. Includes the material on the
California Brake Adjuster's Licensing Examination. Students are strongly recommended to enroll in Automotive Lab concurrently.

NAUT A6 - ELECTRICAL/ELECTRONIC SYSTEMS

Automotive electrical/electronic systems, including electrical circuits, Ohm's Law, battery, starting, charging, ignition, fuel, accessories, brakes, chassis, suspension, steering, HVAC, and wiring systems. Emphasis on diagnosis of electrical
troubles, assembly, repair of components, and diagnostic equipment usage. Students are strongly recommended to enroll in Automotive Lab concurrently.

NAUT A7 - AUTOMOTIVE HEATING AND AIR CONDITIONING

Diagnosing, evaluation, testing, adjustment, and repair of heating, ventilation and air conditioning (HVAC). Includes heat and energy, psychometrics, air flow, refrigerant recycling, equipment and controls. Student will be prepared to pass a nationally recognized HVAC certificate program, required by all California HVAC repair shops. Students are strongly recommended to enroll in Automotive Lab concurrently.

NAUT A8 - ENGINE PERFORMANCE

Principals of automotive fuel induction, ignition and emission control systems, including inspection, diagnosis and repair of fuel and emission control systems/components governed by federal and state laws and standards. Electrical diagnosis of emission control systems. Relation of chassis and body systems to emissions. Students are strongly recommended to enroll in Automotive Lab concurrently.

NC3Z - Automotive NC3 Certification Boot Camp

NC3 Certification Classes. Mike Rowe Works, Shopkey, Precision Measurement 1 and 3. Torque Theory, TPMS Certification. This class follows NC3 certification standards and is for students in the automotive program. This section is the lecture portion of the NC3 certification. The lab section (NAUT NC3L) must also be taken.

NC3L - Automotive NC3 Certification Boot Camp Lab

NC3 Certification Classes. Shopkey, Precision Measurement 1 and 3. Torque Theory, TPMS Certification. This class follows NC3 certification standards and is for students in the automotive program. This section is the lab portion of the NC3 certification. The lecture section (NAUT NC3) must also be taken.

NAUT AMPZ - Automotive Audio System Building

From how to get started to upsetting the neighbors. Choosing a deck, speakers, amps, subwoofers, crossovers, boxes, insulation, capacitors, wiring, EQ, and the rest. How to apply Ohms law and Watts law yes, you need these! Proper setup and tuning are included. This is the Lecture portion of the class. The Lab section (AMPL) must also be take

NAUT AMPL - Automotive Audio System Building Lab

From how to get started to upsetting the neighbors. Choosing a deck, speakers, amps, subwoofers, crossovers, boxes, insulation, capacitors, wiring, EQ, and the rest. How to apply Ohms law and Watts law yes, you need these! Proper setup and tuning are included. This section is the lab component. Lecture class (AMP) must be also taken.

NAUT CINTR - CONCEPTS OF AUTOMOTIVE SERVICE AND INTRODUCTION

This class is lecture only and non-credit. Bumper-to-Bumper Automotive Knowledge. Starting with hazardous waste handling, tool identification, maintenance and lubrication, moving into engine mechanical, emissions controls, suspension systems, air conditioning, airbags and safety, transmissions, axles, and finishing off with the future of the automotive industry. This is an introductory class for people who want to know more about their vehicle.

NAUT CA1 - CONCEPTS OF ENGINE REPAIR

This class is lecture only and non-credit. An in depth study of engines: mechanical, measurement, and assembly. A study of the above mentioned components including theory, teardown, evaluate, qualifying, and rebuilding. This class' emphasis is on engines.

NAUT CA2 - CONCEPTS OF AUTOMATIC TRANSMISSION/TRANSAXLE

This class is lecture only and non-credit. An in depth study of engine, transmission, transaxles: mechanical, measurement, and assembly. An in-depth study of the above mentioned components including theory, teardown, evaluate, qualifying, and rebuilding.

NAUT CA3 - CONCEPTS OF MANUAL DRIVE TRAIN AND AXLES

This class is lecture only and non-credit. An in-depth study of rear axle, front axle, and transfer cases: mechanical, measurement, and assembly. Including theory, teardown, qualifying, and rebuilding.

NAUT CA4 - CONCEPTS OF SUSPENSION AND STEERING

This class is lecture only and non-credit. Diagnosis, evaluation, testing, adjustment, alignment and repair of steering and suspension systems. Including all common automotive steering and suspension systems both car and truck. Futur systems will also be covered.

NAUT CA5 - CONCEPTS OF BRAKES

This class is lecture only and non-credit. Diagnosis, evaluation, inspection, adjustment, and repair of braking, antilock braking systems, traction control and related devices. Class will involve California State law regarding brake and safety
inspections. Includes the material on the California Brake Adjuster's Licensing Examination.

NAUT CA6 - CONCEPTS OF ELECTRICAL/ELECTRONIC SYSTEMS

This class is lecture only and non-credit. Automotive electrical/electronic systems, including electrical circuits, Ohm's Law, battery, starting, charging, ignition, fuel, accessories, brakes, chassis, suspension, steering, HVAC, and wiring systems.
Emphasis on diagnosis of electrical troubles, assembly, repair of components, and diagnostic equipment usage.

NAUT CA7 - CONCEPTS OF AUTOMOTIVE HEATING AND AIR CONDITIONING

This class is lecture only and non-credit. Diagnosing, evaluation, testing, adjustment, and repair of heating, ventilation and air conditioning (HVAC). Includes heat and energy, psychometrics, air flow, refrigerant recycling, equipment and controls. Student will be prepared to pass a nationally recognized HVAC certificate program, required by all California HVAC repair shops.

NAUT CA8 - CONCEPTS OF ENGINE PERFORMANCE

This class is lecture only and non-credit. Principles of automotive fuel induction, ignition and emission control systems, including inspection, diagnosis and repair of fuel and emission control systems/components governed by federal and state
laws and standards. Electrical diagnosis of emission control systems. Relation of chassis and body systems to emissions.

NAUT CA9 - CONCEPTS OF LIGHT VEHICLE DIESEL ENGINES

This class is lecture only and non-credit. An in-depth study of diesel engines: mechanical, measurement, and assembly. A study of the above mentioned components including theory, teardown, evaluate, qualifying, and rebuilding. Diesel engine performance including emissions, turbos, exhaust and intake systems. This class's emphasis is on diesel engines and diesel engine performance/emissions.

NAUT CSDR – Concepts of Specified Diagnostic and Repair

This class is lecture only and non-credit. This is a Bureau of Automotive Repair alternative to the ASE A6, A8 and L1 certification. This class is intended to allow California drivers to understand the training and laws of the smog check program. Student will not qualify for the license exam after taking this class. For more information see www.smogcheck.ca.gov

NAUT CSMG - Concepts of Smog Level One and Level Two

This class is lecture only and non-credit. This class will include Level One and Level Two smog lectures only. This class is intended to allow California drivers to understand the training and laws of the smog check program. At the end of the class students will not qualify for either EI or EO smog license. See www.smogcheck.ca.gov for more information.

NON-Credit Automotive Certificates

Latest update located here: http://www.laspositascollege.edu/auto/noncredit.php

Automotive Basic - Certificate of Completion (Noncredit CDCP)

Required Core: (360 Hours)		Hours
NAUT INTR	Automotive Service and Introduction	144
NAUT LABA	Automotive Lab	108
NAUT LABB	Automotive Lab Advanced	108
Total Hours		**360**

PID 879

Automotive Smog - Certificate of Completion (Noncredit CDCP)

Required Core: (387 Hours)		Hours
NAUT INTR	Automotive Service and Introduction	144
NAUT L1L2	Smog Level One and Level Two	117
NAUT SDR	Specified Diagnostic and Repair	126
Total Hours		**387**

PID 880

Automotive Summer Camp - Certificate of Completion (Noncredit CDCP)

Required Core: (44.5 - 68 Hours)

		Hours
NAUT AMSC	Automotive Summer Camp	17.5 - 28
NAUT AMSL	Automotive Summer Camp Hands On	27 - 40

Total Hours **44.5 - 68** PID 880

Automotive Advanced Smog Technician - Certificate of Completion (Noncredit CDCP)

Required Core: (945 Hours)

		Hours
NAUT INTR	Automotive Service and Introduction	144
NAUT A1	Engine Repair	144
NAUT A2	Automatic Transmission/Transaxle	144
NAUT LABA	Automotive Lab	108
NAUT A6	Electrical/Electronic Systems	162
NAUT L1L2	Smog Level One and Level Two	117
NAUT SDR	Specified Diagnostic Repair	126

Total Hours **945** PID 880

Automotive Mechanical - Certificate of Completion (Noncredit CDCP)

Required Core: (846 Hours)

		Hours
NAUT INTR	Automotive Service and Introduction	144
NAUT A1	Engine Repair	144
NAUT A2	Automatic Transmission/Transaxle	144
NAUT LABA	Automotive Lab	108
NAUT A6	Electrical/Electronic Systems	162
NAUT A3	Manual Drivetrain and Axles	144

Total Hours **846**

PID 880

Automotive Chassis - Certificate of Completion (Noncredit CDCP)

Required Core: (387 Hours)

		Hours
NAUT INTR	Automotive Service and Introduction	144
NAUT A4	Suspension and Steering	144
NAUT A5	Brakes	144
NAUT LABA	Automotive Lab	108
NAUT A6	Electrical/Electronic Systems	162
NAUT A7	Automotive Heating and Air Conditioning	144

Total Hours **846**

PID 880

Automotive Powertrain Diagnosis - Certificate of Completion (Noncredit CDCP)

Required Core: (846 Hours)

		Hours
NAUT INTR	Automotive Service and Introduction	144
NAUT LABA	Automotive Lab	108
NAUT LABB	Advanced Automotive Lab	108
NAUT LABC	Automotive Lab Specialized Bench Work	108
NAUT LABD	Automotive Lab Specialized Electronic Work	108
NAUT A1	Engine Repair	144
NAUT A2	Automatic Transmission/Transaxle	144
NAUT A8	Engine Performance	162

Total Hours **846**

PID 880

Concepts of Automotive Powertrain - Certificate of Completion (Noncredit CDCP)

Required Core: (252 Hours)

		Hours
NAUT CINTR	Concepts of Automotive Service and Introduction	36
NAUT CA1	Concepts of Engine Repair	36
NAUT CA2	Concepts of Automatic Transmission/Transaxle	36
NAUT CA6	Concepts of Electrical/Electronic Systems	54
NAUT CA8	Concepts of Engine Performance	54
NAUT CA9	Concepts of Light Vehicle Diesel Engines	36

Total Hours **252**

PID 880

Automotive Hands On Experience - Certificate of Completion (Noncredit CDCP)

Required Core: (576 Hours)

		Hours
NAUT INTR	Automotive Service and Introduction	144
NAUT LABA	Automotive Lab	108
NAUT LABB	Advanced Automotive Lab	108
NAUT LABC	Automotive Lab Specialized Bench Work	108
NAUT LABD	Automotive Lab Specialized Electronic Work	108

Total Hours **576**

PID 880

Concepts of Automotive Mechanical - Certificate of Completion (Noncredit CDCP)

Required Core: (252 Hours)

		Hours
NAUT CINTR	Concepts of Automotive Service and Introduction	36
NAUT CA1	Concepts of Engine Repair	36
NAUT CA2	Concepts of Automatic Transmission/Transaxle	36
NAUT CA3	Concepts of Manual Drive Train and Axles	36
NAUT CA9	Concepts of Light Vehicle Diesel Engines	36
Total Hours		**180**

PID 880

Concepts of Automotive Chassis - Certificate of Completion (Noncredit CDCP)

Required Core: (162 Hours)

		Hours
NAUT CINTR	Concepts of Automotive Service and Introduction	36
NAUT CA4	Concepts of Suspension and Steering	36
NAUT CA5	Concepts of Brakes	36
NAUT CA6	Concepts of Electrical/Electronic Systems	54
Total Hours		**162**

PID 880

Concepts of Automotive Know How - Certificate of Completion (Noncredit CDCP)

Required Core: (396 Hours)

		Hours
NAUT CINTR	Concepts of Automotive Service and Introduction	36
NAUT CA1	Concepts of Engine Repair	36
NAUT CA2	Concepts of Automatic Transmission/Transaxle	36
NAUT CA3	Concepts of Manual Drive Train and Axles	36
NAUT CA4	Concepts of Suspension and Steering	36
NAUT CA5	Concepts of Brakes	36
NAUT CA6	Concepts of Electrical/Electronic Systems	54
NAUT CA7	Concepts of Automotive Heating and Air Conditioning	36
NAUT CA8	Concepts of Engine Performance	54
NAUT CA9	Concepts of Light Vehicle Diesel Engines	36

Total Hours **396**

PID 880

Concepts of Automotive Body Systems - Certificate of Completion (Noncredit CDCP)

Required Core: (252 Hours)

		Hours
NAUT CINTR	Concepts of Automotive Service and Introduction	36
NAUT CA6	Concepts of Electrical/Electronic Systems	54
NAUT CA7	Concepts of Automotive Heating and Air Conditioning	36

Total Hours **252**

PID 880

Automotive Drag Strip

If you are here you have questions. You are in the pits at the LPC Automotive drag strip. The pits is where you build your engine, set up your suspension, and program the engine computer. In other words get ready for the race of your life!

Step One: Follow the link below. Complete Step one through Step three and come back to this page.

Admissions and Records - Six Steps to Success.

Step Two: Before hitting the accelerator pedal at a drag strip, there are some things a driver needs to know. Talking with the crew chief can reveal some inconsistencies about the track, humidity, temperature, and fuel being used. That is the same when signing up for Automotive classes here at LPC. Your crew chief is this Guided pathway. Here is what you need to know:

Review class names and descriptions here: Automotive Courses.

Every new student must take AUTO INTR, (INTL and INTZ). This class(es) is a corequisite for all other classes. There are only 3 ways not to take AUTO INTR (INTL and INTZ). However, only 5% of students fall into these categories.

Articulation through your high school.

Two years of verified full-time automotive experience approved by the automotive program coordinator.

The Challenge test was chosen by the automotive program coordinator and passing by more than 90%

Every semester (Fall and Spring), two sections of AUTO INTR (INTL and INTZ) are run. One section is Monday, Wednesday night. The other is Saturday.

Every Semester LABA and LABB are run Monday and Wednesday afternoon.

Smog Classes are run Tuesday and Thursday night. More on these later.

The other classes rotate through the Monday/Wednesday morning, Tuesday/Thursday morning, and Tuesday/Thursday afternoon slots. This means three different classes are run every semester. Example: If you are looking in the class schedule and see A3, A4, and A5 being run in the Fall semester. You can be sure A6, A7, and A8 will be run in the Spring Semester. Another example. If you see A9, L1, and L3 run in Spring Semester, you can be sure A1, A2, A3 will run in the Fall semester. Graphical Example here.

Classes can be taken in any order with few exceptions. INTR (INTL and INTZ) must be taken first or at the same time as other Auto classes in your first semester (corequisites). L1 and L3 have extra corequisites. They are A6 and A8. Lastly, LABA must be taken before LABB (prerequisite).

IMPORTANT: If at any time during your race down the drag strip, A6 and A8 are being offered. TAKE THESE CLASSES. If you do not, you will not meet the corequisite for L1 and L3. This means you will delay your graduation date by 1.5 years.

Step 3: Burnout. Time to test the rev of the engine. What is your goal? Certificate? AS Degree? Smog? Couple classes and work? Just want to learn about cars? If you do not know, that is OK. Plans change.

Definitions/Descriptions:

AS Degree: Designed for students interested in transferring to a four-year university or wanting a job in the automotive industry. Jobs such as Dealership or independent technician, shop owner, parts counter person, service consultant, and service manager.

Certificate: Designed for students who are wanting a job in the automotive industry. Jobs such as Dealership or independent technician, shop owner, parts counter person, service consultant.

Smog: Designed for students who are wanting a job in the automotive smog industry. Jobs such as Smog Inspection technician, smog repair technician.

Hobby Pathway: I am just an enthusiast. I want to learn about cars. I do not want to be taken advantage of.

The point is to start correct, stay in the grove, and finish. See the chart below:

Certificate/AS/Smog/Hobby Pathway

Step 4: Staging. Pullup to the line and wait for the green light to hit the gas! You know about the program. You have seen the map to each goal—time to look at the class schedule and sign up for classes. Go here: Classweb.

Step 5: Finish the race. Come to class, learn, experience, and enjoy!

Step 6: Still have questions, need help? Contact Brian Hagopian

Smog Classes

Las Positas Automotive offers California State Smog Certification classes. These classes are AUTO SDR and AUTO L1L2 or NAUT SDR and NAUT L1L2. SDR usually is run in the Spring Semester, and L1L2 is run in the Fall Semester. These classes have a set curriculum that comes from the Bureau of Automotive Repair. They are written by the State of California and are aimed at people who have experience in the field. If you are a new student and would like to obtain your smog license, you will need these two classes. WARNING: It is highly recommended that you have at least AUTO INTR before taking these classes or two years of experience in the field..

Annual Schedule and Class Rotation

Semester One

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning	A1	A2	A1	A2			
Afternoon		A3		A3			
Evening							

Semester Two

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning	A4	A5	A4	A5			
Afternoon		A6		A6			
Evening							

Semester Three

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning	A7	A8	A7	A8			
Afternoon		A9		A9			
Evening							

Semester Four							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning	L1	L3	L1	L3			
Afternoon		A1		A1			
Evening							

Semester Five							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning	A2	A3	A2	A3			
Afternoon		A4		A4			
Evening							

Semester 6	A5, A6, A7	
Semester 7	A8, A9, L1	
Semester 8	L3, A1, A2	
Semester 9	A3, A4, A5	
Semester 10	A6, A7,A8	
Semester 11	A9, L1, L3	
Semester 12	A1, A2, A3	Same as Semester One, rotation repeats

Every Semester							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning						INTR	
Afternoon	LABA/LABB		LABA/LABB			Section 2	
Evening	INTR Section 1	L1L2/SDR	INTR Section 1	L1L2/SDR			

SDR is run in the Spring Semester. L1L2 is run in the Fall Semester.

INTR is equivalent to INTL AND INTZ together.

Approximate Tuition and Fees

The following is the best estimate for what to expect when attending Las Positas College Automotive Program. We have done our absolute best to make sure all costs associated with attending Las Positas are included. While we can not control inflation, book costs or parking fees, we think this will give you a total cost within 10% of true costs.

Statewide unit costs to attend community college is $46 per unit. Certificate and AS degree units vary; these are listed below. Taxes are not included.

AS Automotive Electronics Technology

Item	Qty/Cost per	Total
AS Degree*	65/$46.00	$2990.00
Book INTR	1/$154.50	$154.50
Book License 2 year	1/$244.00	$244.00
Parking pass	4/$40.00	$160.00
Various College charged fees	4/$30	$120.00
Safety Glasses	1/$2.00	$2.00
Total Cost for AS Degree		**$3670.50**

**Units vary depending on capstone class chosen.*

AS Light Duty Diesel

Item	Qty/Cost per	Total
AS Degree*	64/$46.00	$2944.00
Book INTR	1/$154.50	$154.50
Book License 2 year	1/$244.00	$244.00
Parking pass	4/$40.00	$160.00
Various College charged fees	4/$30	$120.00
Safety Glasses	1/$2.00	$2.00
Total Cost for AS Degree		**$3624.50**

**Units vary depending on capstone class chosen.*

AS Automotive Alternative Fuels/Hybrid Technology

Item	Qty/Cost per	Total
AS Degree*	64/$46.00	$2944.00
Book INTR	1/$154.50	$154.50
Book License 2 year	1/$244.00	$244.00
Parking pass	4/$40.00	$160.00
Various College charged fees	4/$30	$120.00
Safety Glasses	1/$2.00	$2.00
Total Cost for AS Degree		**$3624.50**

**Units vary depending on capstone class chosen.*

AS Automotive Master

Item	Qty/Cost per	Total
AS Degree*	85.5/$46.00	$3933.00
Book INTR	1/$154.50	$154.50
Book License 2 year	1/$244.00	$244.00
Parking pass	4/$40.00	$160.00
Various College charged fees	4/$30	$120.00
Safety Glasses	1/$2.00	$2.00
Total Cost for AS Degree		**$4613.50**

**Units vary depending on capstone class chosen.*

AS Smog Technician

Item	Qty/Cost per	Total
AS Degree*	66.5/$46.00	$3059.00
Book INTR	1/$154.50	$154.50
Book License 2 year	1/$244.00	$244.00
Parking pass	4/$40.00	$160.00
Various College charged fees	4/$30	$120.00
Safety Glasses	1/$2.00	$2.00
Total Cost for AS Degree		**$3739.50**

**Units vary depending on capstone class chosen.*

Certificate of Achievement Automotive Chassis

Item	Qty/Cost per	Total
Certificate Classes	23/$46.00	$1058.00
Book INTR	1/$154.50	$154.50
Book License 2 year	1/$155.00	$155.00
Parking pass	3/$40.00	$120.00
Various College charged fees	3/$30	$90.00
Safety Glasses	1/$2.00	$2.00
Total Cost for Certificate		**$1579.50**

Certificate of Achievement Automotive Driveability

Item	Qty/Cost per	Total
Certificate Classes	29/$46.00	$1334.00
Book INTR	1/$154.50	$154.50
Book License 2 year	1/$244.00	$244.00
Parking pass	3/$40.00	$120.00
Various College charged fees	3/$30	$90.00
Safety Glasses	1/$2.00	$2.00
Total Cost for Certificate		**$1944.50**

Certificate of Achievement Light Duty Diesel

Item	Qty/Cost per	Total
Certificate Classes	33/$46.00	$1518.00
Book INTR	1/$154.50	$154.50
Book License 2 year	1/$244.00	$244.00
Parking pass	3/$40.00	$120.00
Various College charged fees	3/$30	$90.00
Safety Glasses	1/$2.00	$2.00
Total Cost for Certificate		**$1988.50**

Certificate of Achievement Automotive Alternative Fuels/Hybrid Technology

Item	Qty/Cost per	Total
Certificate Classes	28/$46.00	$1288.00
Book INTR	1/$154.50	$154.50
Book License 2 year	1/$244.00	$244.00
Parking pass	3/$40.00	$120.00
Various College charged fees	3/$30	$90.00
Safety Glasses	1/$2.00	$2.00
Total Cost for Certificate		**$1758.50**

Certificate of Achievement Automotive Master

Item	Qty/Cost per	Total
Certificate Classes	60/$46.00	$2760.00
Book INTR	1/$154.50	$154.50
Book License 2 year	1/$244.00	$244.00
Parking pass	3/$40.00	$120.00
Various College charged fees	3/$30	$90.00
Safety Glasses	1/$2.00	$2.00
Total Cost for Certificate		**$3230.50**

Certificate of Achievement Automotive Mechanical

Item	Qty/Cost per	Total
Certificate Classes	23/$46.00	$1058.00
Book INTR	1/$154.50	$154.50
Book License 2 year	1/$155.00	$155.00
Parking pass	3/$40.00	$120.00
Various College charged fees	3/$30	$90.00
Safety Glasses	1/$2.00	$2.00
Total Cost for Certificate		**$1579.50**

Certificate of Achievement Smog Technician

Item	Qty/Cost per	Total
Certificate Classes	29.5/$46.00	$1357.00
Book INTR	1/$154.50	$154.50
Book License 2 year	1/$244.00	$244.00
Parking pass	3/$40.00	$120.00
Various College charged fees	3/$30	$90.00
Safety Glasses	1/$2.00	$2.00
Total Cost for Certificate		**$1827.50**

*** Actual costs depend on your schedule of classes**

Financial Aid is available -- visit the Financial Aid Office or go to http://www.laspositascollege.edu/financialaid/ for more information.

NOTE: above amounts are subject to change

Attendance Policy

The Automotive Technology Program is designed to prepare students for jobs. While mechanical skills and knowledge are essential for holding a job, reporting to work regularly and on time are also important. Therefore, a strict "Attendance Policy" is in effect.

Roll will be taken five (5) minutes after the published starting time for the class as listed in the Schedule of Classes. Any student arriving to class after the roll is taken will be recorded as tardy.

A tardy up to one half hour will be equated as one-half (0.5) of an absence. A tardy of more than one half hour will be considered a full absence. Cutting class once it has started will be considered a full absence.

Instructors may take into consideration pre-arrangements concerning absences or tardies for legitimate reasons.

A student **may be** required to have an Attendance Meeting with a committee composed of several automotive instructors when the number of accumulated absences equals the number of times that the class meets in a week. A decision will be made at that meeting as to the student's future in the automotive program.

The College Catalog states that *"Instructors may drop a student from class if the number of absences exceeds the number of times the class meets in one week."*

College rules prohibit a "W" grade during the last three weeks of the semester. Therefore, if a student's absences exceed the limit during that time, the instructor has no option but to assign a final grade of "F" for the class.

Recommended Tool List

Automotive Technology students are not required to furnish appropriate tools. The Las Positas College Automotive tool room is fully stocked with the tools and equipment need to support the program and students. During a student's time in the Automotive Program, tool discounts are offered from all major tool companies. We have provided a recommended list of tools so that a student can start collecting the necessary tools for employment.

BASIC SET

Toolbox with lock

1 pair of pliers - 6 inch slip joint

1 pair of pliers - 7 inch diagonal cutting

1 pair of pliers - 7 inch needle nose

1 pair of pliers - 9 inch channel lock

Standard tip screwdrivers - 3 assorted sizes to include a small pocket flat blade type screwdriver Phillips tip screwdrivers #1 - 2 different lengths

Phillips tip screwdrivers #2 - 2 different lengths

14 Combination wrenches - 6mm to 19 mm - 12 point (Standard Length)

14 Combination wrenches - ¼" to 1" - 12 point (include 11/32") (Standard Length)

2 Flare nut wrenches - 6 point - 8 mm, 10 mm and 12 mm

3 Flare nut wrenches - 6 point - 3/8", 7/ 16", ½", 9/ 16" and 5/8"

1 ½" drive LONG breaker bar

½" drive ratchet

½" drive extensions (2 different lengths)

8 ½" drive sockets - 6 point - 9/16" to 1" in increments of 1/16" 14 3/8" drive sockets - 6mm to 19mm - 6 point

7 3/8" drive sockets - 3/8" to 3/4" - 6 point

1 3/8" drive ratchet, non-flex head

1 3/8" drive universal joint

1 3/8" drive 5/8" spark plug socket

1 3/8" drive 13/16" spark plug socket

1 gasket scraper or putty knife

1 32 ounce ball peen hammer

1 punch and chisel set - 5 or more pieces including a center punch

3 3/8" drive extensions - assorted lengths

1 Adapter - ½" female to 3/8" male

1 Adapter - 3/8" female to ½" male

1 U.S. Allen wrench set

1 Metric Allen wrench set

1 set feeler gauges - blade type - .001" to .025" in increments of .001"

1 6 inch steel rule - divided in 32nds of an inch on one side and Metric on the other side

1 drop light

12 volt test light

3/8" drive Torx drivers - T40 and T45

5 Torx screwdrivers - TIO, T15, T20, T25 and T30

1 magnetic pick-up tool

1 Pry bar - minimum 24 inches long with a plastic handle - NOT A CROWBAR!

1 150 ft lb torque wrench

ITEM #2 AUTO A4 AUTOMOTIVE CHASSIS

1 brake adjusting spoon

1 hold down brake spring tool

1 return spring brake tool

1 12 inch adjustable wrench

1 12 foot STANLEY tape measure with power lock (or equivalent)

1 3/8" drive 3/8" Allen driver

1 LARGE rubber mallet

1 ½" drive 6-point 3/4" impact socket

1 ½" drive 6-point 13/16" impact socket

ITEM #3 AUTO A6 AUTOMOTIVE ELECTRICAL AND ELECTRONIC SYSTEMS

1 ¼" drive socket set to include a ratchet and at least 1 extension (6 point sockets preferred)

1 ¼" drive socket nut driver handle with ¼" drive female drive at top of handle

1 roll of electrical tape

1 wire stripping/crimping tool

1 battery terminal puller

1 battery cable spreader

1 battery cable and post cleaner

1 pocket knife

4 jumper leads: 2 with alligator clips on both ends - minimum 3 feet long 2 with male spade on one end and female on the other end

ITEM #4 AUTO L1 ADVANCED ENGINE PERFORMANCE

1 flex headed 3/8" drive ratchet

1 1" long 3/8" drive extension

1 spark plug gap gauge - .035" to .080"

3 golf tees

3' 5/32" vacuum hose

1 HEI special spark tester (spark plug with alligator clip attached)

ITEM #5 AUTO A2 DRIVE TRAIN AND AUTOMATIC TRANSMISSIONS

1 3/8" drive speed handle

soft face hammer

internal true arc retaining ring pliers - 2 different tip sizes

2 external true arc retaining ring pliers - 2 different tip sizes

1 retaining ring pliers - regular opening

1 rubber tipped air nozzle with appropriate fitting to fit shop hose 6 studs (2 ea.) - 5/16" x 3" NC - 3/8" x 3" NC - M8 x 1.25 x 60mm

Rules, Procedures, and Safety

Las Positas College AUTOMOTIVE SAFETY

The safety instructions which follow are for the benefit of students in our job-entry training program. Safety rules and precautions must be observed by all students. Habitual carelessness or failure to observe these rules is sufficient cause for dismissal from class. The instructions which follow are a

part of your training program. Review them carefully to familiarize yourself with shop safety practices. At the beginning of each class, you may be given a written safety test, after which the instructor will review and discuss the test questions with you. Retain these instructions for future reference. You will receive specific safety instructions during this training program in connection with shop safety and various mechanical operations related to automobile repair. ***Make safety a habit!***

Emergency Procedures

IN CASE OF INJURY, FIRE OR EMERGENCY, PHONE SAFETY AND POLICE SERVICES: x1699

Other Emergency Numbers:

- Campus Safety - 1699
- College Operator - 0
- Cal/OSHA - 568-8602

RESPONSIBILITY FOR MEDICAL EXPENSES

Student Injuries: *The student is responsible for their medical and any ambulance expenses*. The College does not assume responsibility (exception: intercollegiate athletics).

Fees for emergency care: The ill or injured person will be charged an ambulance fee and the emergency hospital fee.

All injuries, other than those which are superficial or minor, should be reported to Police Services and/or Health Services and/or the Administrator in charge.

Shop Safety Rules

CLOTHING AND PERSONAL PROTECTION

Wear safety glasses or other type of eye protection whenever working in the shop, especially when using grinding wheels, machine tools, impact tools, presses, pullers, compressed air, punches and chisels or when doing brake work, working on batteries, working with carburetor cleaners or other hazardous chemicals or working underneath a vehicle.

Neck ties, long sleeves and long hair can become entangled in machinery. Before starting work, remove the tie, roll up the sleeves, tie the hair back, tuck in loose clothing and wear your coveralls.

Because of the danger of severe burns, jewelry, watches and rings will not be worn in the shop. Remove watches and rings before starting work.

For shop work, shoes with composition soles such as neoprene are safest. Steel-toed shoes are preferred. Sandals and running shoes are not acceptable.

GENERAL RULES

Know the location of fire extinguishers in the shop. Familiarize yourself with their operation.

Know the location of the first aid kit, the eye wash station and the emergency shower.

Be sure you have an instructor's permission for any job you do in the shop area. Never work on any job that has not been authorized by your instructor.

Never work in the shop when no instructor is present.

Report any unsafe condition to the instructor.

Don't work on machinery if you are too tired, sick or emotionally upset to work safely or if you have taken drugs which cause drowsiness or affect judgment.

No "horseplay" or fighting is permitted in the shop.

Use the right tool for the job to prevent injury and damage to the machine part or tool. Follow manufacturer's recommended procedures.

Broken or damaged tools are dangerous. Report them to your instructor so they can be repaired or replaced.

Keep your work area clean and organized. A messy workplace can lead to accidents.

Clean up oil and other fluids which spill on the floor. Keep floors, aisles and passageways clear of tools and material to prevent slips and falls.

Lift heavy loads with the knees, not with the back. Get help from another person or use a chain hoist or jack when necessary.

When moving vehicles in the shop area (whether pushing or driving them), keep the driver's window rolled down so you can hear any instructions clearly.

Drive slowly into or out of the shop. Don't speed. Speed limit in the shop area is 5 mph.

Car doors should be closed whenever possible, even when working on the interior.

When handling refrigerant and refrigeration components, observe the safety precautions outlined in the service manual.

Be sure you have been properly trained in all safety precautions before doing any welding. Stay away from fuel tanks and lines when welding.

GASOLINE AND OTHER FLAMMABLE MATERIALS

Gasoline must never be used near sparks or flames in order to guard against fire.

An extinguisher should be at hand when starting a car after completing ignition or fuel system repairs.

Spilled gasoline is a fire hazard and must be swept up immediately.

Clothing which has gasoline spilled on it should be changed. It is a fire hazard.

"Empty" fuel tanks contain vapors that are explosive; therefore, tanks will not be repaired or subjected to flame.

Avoid pouring gasoline down a carburetor throat while starting an engine.

Never use gasoline as a solvent.

Use only approved containers to store or transport gasoline.

Be sure safety cages are in place around drop light bulbs. A shattered bulb can ignite gasoline or other flammable liquids.

Remember that most other automotive fluids are flammable including all oils and brake fluid. Take appropriate precautions.

Store oily rags in airtight approved containers.

RAISING VEHICLES WITH JACKS

Before lifting a vehicle with a jack, put the shift lever in neutral and release the parking brake.

Keep the head of the jack at a specified lift point or at a rigid portion of the frame.

A car supported only on a jack is unsafe and must be supported on jackstands before working underneath. After lifting the vehicle, support it with jackstands placed securely at specified support points or at rigid portions of the frame.

After supporting the vehicle at one end, block the wheels at the other end to prevent it from rolling.

Verify that the jackstands are properly placed and the vehicle is secure before working underneath.

Prevent being hit by falling objects when working under an automobile by first checking to see that no loose objects are on top of the fenders, bumpers or other parts of the vehicle.

Lift creepers and floor jack handles up out of the way so people won't trip over them.

USING LIFTS

Spot the vehicle so it will be centered on the lift with its center of gravity between the lift pads on frame contact lifts or near the center of the lift on drive on lifts. For most rear wheel drive cars, the center of gravity is under the driver's seat. For most front wheel drive cars, the center of gravity is under the steering wheel. Use special care when lifting trucks and vans.

Position frame contact lift pads at specified lift points.

When using lifts with retractable arms, extend the arms as far as possible to increase stability.

Before raising cars on frame contact lifts, put the shift lever in neutral, release the parking brake and unlock the steering wheel.

Before raising cars on drive on lifts, block the wheels so the vehicle can't roll.

Before raising or lowering a vehicle, check that the area under and around it is clear. Warn those nearby to stand clear.

Check that the vehicle is stable when it is an inch or so off the ground, before you lift it fully.

Lower the lift onto its safety catches after you lift the vehicle.

If a car cannot be raised safely, do not raise it at all.

Be careful when removing heavy parts such as engines or transaxles from a vehicle supported on a lift. A sudden shift of its center of gravity could unbalance the vehicle.

ENGINES

Keep away from moving parts when working around running engines. Fan belts, fans, and pulleys can easily cut off a finger or cause other serious injuries.

Exhaust gas is poison. Never run an engine in a closed room or garage. Always have good ventilation. Use an exhaust hose to connect the tailpipe to the shop exhaust system whenever running an engine in the shop.

When starting an engine in the shop, make sure:

everyone nearby is clear and knows you are about to start the engine

the shift lever is in Park (automatic transmission) or Neutral (manual transmission) and the parking brake is applied

you are sitting in the driver's seat with one foot on the brake (automatic transmission) or clutch (manual transmission) rather than reaching in through the window and turning the key

no tools, parts or test leads are in position to fall into the engine or get caught in the fan

Make sure the transmission is in Park or Neutral and the parking brake applied whenever working on a running engine.

Never start an engine when someone is under the vehicle. Avoid working under a vehicle when the engine is running.

Never remove the radiator cap or open a pressurized cooling system when the engine is hot.

Keep hands and other exposed parts of the body away from hot manifolds and exhaust pipes.

Keep the electrical test leads of timing lights and other test equipment clear of rotating parts. Wires can easily get caught and tangled in the blades or pulleys.

Keep away from the fan when revving the engine. A few mechanics have been killed or injured when defective fan blades broke loose from the fan.

Do not choke an engine with your hand over the carburetor throat. Do not look down the carburetor barrel when starting or revving an engine.

Ignition switches should be off before removing distributors.

Keep hands away from electric cooling fans. They may start automatically at any time, even when the key is in the Off position

BATTERIES

The gases given off by a battery are explosive. Keep sparks and flames away. When batteries explode, sulfuric acid is thrown violently at anyone or anything nearby. Sulfuric acid causes blindness.

Batteries give off more explosive gases and are more dangerous when they are being charged at a high rate. Be extra careful.

To eliminate arcing of batteries, the battery ground cable must be removed first and installed last.

Observe proper polarity when jump starting or charging a battery (positive to positive, negative to negative). Reversing polarity is dangerous and will damage expensive electrical and electronic parts.

When charging a battery with a battery charger:

turn off the charger before connecting it to or disconnecting it from the battery

loosen vent caps (if possible) while charging

cut back the charging rate or shut off the charger if the battery boils or vents excessively or if the temperature or voltage go too high or if the battery begins to smell bad

When jump starting a car with a dead battery, make the last jumper cable connection at its engine block ground rather than at the battery. When the engine starts, disconnect at the engine block first.

Disconnect the battery ground cable before performing major engine, fuel or electrical system repairs.

Don't leave tools on top of a battery. They may short circuit the battery and cause an explosion.

Use proper instruments to test a battery. A battery shorted with wire or pliers may cause an explosion.

Handle batteries and acid with care. Battery electrolyte should be immediately washed off with water if spilled on skin, clothing or painted surfaces of the vehicle.

Remove and carry a battery with a suitable battery lifter.

COMPRESSED AIR

When using compressed air to clean parts, direct the air stream so that dirt and loose particles will not be blown in anyone's face. Never direct the air nozzle towards anyone.

Compressed air should never be used for cleaning dust from your clothes.

Never spin ball or roller bearings with compressed air. They can fly apart and cause serious damage.

POWER EQUIPMENT

Be sure you have your instructor’s permission before using any power equipment.

If in doubt about how to use any tool or machine, consult the instructor before you use it.

Before turning on a machine, be certain all persons are clear and that all machine adjustments and setups are correct and have been checked and approved by the instructor. Make sure all safety guards are in place.

Stay with a running machine until you have turned it off and it has come to a dead stop. This will protect others from the hazards of an unattended machine.

Make sure all electrical devices, including drills, motors, extension cords and drop lights have properly grounded three wire conductors and connectors in the proper state of repair. Otherwise a short circuit might ground through you. Don't use tools with worn or damaged cords or plugs.

Be certain your hands are dry before touching electrical switches or plugs.

Check condition of air hoses and chucks for breaks and loose fittings before using.

Connect extension cords and air hoses so people won't trip.

When using the wheel balancer, make sure the wheel and tire are properly installed and free of foreign particles before starting them in motion. Install wheel weights securely so they won't fly off.

When using the hydraulic press, be sure the table is properly supported on its frame and the work is properly supported and aligned on the table. Keep your hands and face away from the pressure ram and the work when operating the press.

When using the valve grinder, make sure the valve is securely locked in the chuck and that the set screw in the centering mandrel is secure.

When using the valve spring compressor, make sure compressor jaws are securely seated on the valve spring retainer.

Make sure jacks, chain hoists or cranes are properly secured and centered over the load before lifting engines transmissions or other heavy parts. Keep the load in balance to prevent tipping.

After lifting an engine, support it on an engine stand or on blocks. Never work on an engine that is hanging from an engine hoist or chain.

DRILLING

When drilling on the drill press, use a vise or clamp to hold the work to prevent the drill from catching and throwing the work.

Always use a properly ground and sharpened drill bit. Worn drills dig rather than cut the work.

Remove the chuck key from the chuck before turning on the power. Make sure the switch is not turned on accidentally while the drill bit is being tightened in the chuck.

Stop the drill immediately if the drill bit gets caught in the work.

Ease up on the feed pressure as the drill breaks through to prevent the drill from catching.

Stop the drill before attempting to remove chips or cuttings. Use a brush to remove chips.

Hold the electric hand drill with one or both hands as required, keeping your face away from the drill motor handle. Be ready to operate the switch to shut off the drill at any moment.

GRINDING WHEEL

Keep the tool rest close to the grinding wheel. The gap should not exceed 1/8 of an inch. Turn off the wheel before making the adjustment.

Anyone in the line of flight must stand to one side when grinding wheel is being faced or started up.

Use particular caution when holding grinding work in the hands.

When grinding a small piece of material, hold it securely with vise grips to keep it from jamming in the wheel.

Never hold the work downward between the tool and rest when grinding to prevent jamming.

Don't grind on the side of the wheel as it may weaken the wheel.

Buff the work below the horizontal axis of the wheel to prevent the wheel from throwing the work.

BENCH WORK AND HAND TOOLS

Careful handling of sharp tools will prevent injury.

Chisels and punches should have the ends ground or filed when they become mushroomed. Grind off mushroomed heads on these tools before using them.

All files must be securely fitted with handles.

Keep both hands behind the sharp edges of screwdrivers or scrapers to prevent injury.

Extend the handle toward the other person when handing him or her a sharp tool.

Don't carry sharp tools such as screwdrivers in your pockets, Carry them in your hand point down.

Keep tools sharp at all times. Dull tools are dangerous.

Use a proper holder with a chisel or punch to keep from hitting your hand with the hammer.

Do not strike two hardened pieces of metal together as flying chips could injure someone.

Be certain that stock held in a vise is secure.

Tools or material should not be left protruding from a vise or workbench.

Wrenches with badly worn, chewed or sprung openings should not be used. Replace them.

HAZARDOUS MATERIALS

Be sure you can use and understand a Material Safety Data Sheets (MSDS). Be sure you know where the MSDS sheets are located in the automotive lab area. It you ever have any questions about the safety of any material or procedure in the Automotive Technology program, ask your instructor before proceeding.

If you ever have any sort of reaction to any material or substance in the Auto Mechanics lab, consult the MSDS, inform your instructor, and (if necessary) tell your physician.

Learn the proper procedure and take all proper precautions to dispose of any material in the lab, from oil filters to carburetor cleaner to asbestos brake dust. Remember that it is very important not to “contaminate waste streams” (i.e. no antifreeze in the waste oil).

Brake dust damages the lungs and causes cancer. Use the proper equipment when removing brake drums and cleaning brake parts.

Use care to prevent splashing of cleaning solutions when cleaning parts in the solvent tank.

Carburetor cleaners are powerful chemicals. Rinse immediately if they contact the skin.

Antifreeze tastes sweet but is poisonous. Keep it sealed and out of reach of animals and children.

Conduct yourself in a safe manner at all times.

Obey the shop safety rules.

General rules of classroom conduct apply in the lab as well. You are here to learn the proper use of all the equipment and machines in the shop. If you ever have any questions or are not sure how to do something, ask your instructor. Don't guess and break something or hurt yourself.

Proper conduct is a must. Students are expected to be adult enough to be self-disciplined. No horseplay, games or fights in the lab area will be tolerated.

Do not play with shop equipment. Deliberate breakage of equipment or deliberate damage to customer or shop cars will be grounds for expulsion from the program.

All vehicles driven on school grounds must be driven in a responsible manner. Any student that races a vehicle either in the shop or parking lot will be disciplined. This includes your personal vehicle in the student lot as well as customer vehicles when on test drives.

All students must come prepared for lab every day. Students are expected to have their tools every day. Coveralls must be worn whenever working in the shop. Sandals or jogging shoes are not allowed. Students without proper tools or uniform will be sent home for the day and will receive one full absence.

Every student is expected to help keep the shop clean, as cleaning the shop is part of the course. Every stall must be cleaned immediately after use.

Sitting in cars or s on benches will not be allowed. Playing the radios in customers' cars is also forbidden.

Swearing, fighting and the use of vulgar language will not be allowed in the shop.

Students are not allowed to work on vehicle systems unrelated to their class work without the instructor's permission. For example, no wheel balancing in Engines class, no carburetor work in Chassis class. If a student does an unrelated job without the instructor's permission, he or she will be sent home immediately and marked absent.

LAS POSITAS COLLEGE Auto Technology Program is not a hobby shop. You may not work on your own car in the lab without advance permission for that specific job and car from your instructor. Most of the work on your own car will have to be done at your home, not at school.

All work must have the instructor's OK.

Students may not leave the shop area except at "break time" without the instructor's permission.

Anyone who is not here any time during the lab period will be marked absent for the entire day.

Visitors are welcomed only when they have checked with the instructor. This includes students in another class which has not yet started. Wait for class in a classroom outside; do not hang around the lab/shop area or the instructor's office waiting for class to begin.

Many of the more common safety hazards have been mentioned. It would be nearly impossible to include every cause of accidents. Safety is primarily promoted by common sense and asking someone when you are in doubt about a situation.

Clean-Up Procedures

Each class is responsible for cleaning the lab and toolroom areas before class is dismissed.

Each group of students is responsible for cleaning up its own work area before the end of the class period.

No student will be dismissed from class until all work areas are clean and all tools have been cleaned and checked into their proper places in the toolroorm. Any student leaving before all tools are turned in and all areas are cleaned up will receive a full absence for the day.

Toolroom Checkout

No one will be allowed in the toolroom except for the student toolroom keeper assigned by the instructor. Unauthorized students in the toolroom will be dismissed for the day. No tools will be issued unless students have coveralls with name patches on them.

When checking out tools, clearly print the student's name and the description of the tool on the Tool Checkout Sheet.

No tools will be issued to students for jobs that are not part of that class's normal work (for example no tune-up tools will be issued to anyone in the Chassis class) without the instructor's express permission.

It is the responsibility of the person checking out the tools and of the student receiving the tools to check the condition of the tools when they are checked out.

Any equipment or tool which does not function properly or is broken during use must be reported immediately to the instructor (not to the student toolroom keeper).

Intentional misuse or unsafe use of tools is grounds for dismissing the student for the day and marking him or her absent for the day.

All tools must be returned clean, with cords neatly wound or coiled. All drain pans must be washed and dried. All tools must be replaced in their assigned positions in the toolroom at the end of each class.

No one is allowed to leave until all tools have been cleaned and returned to the toolroom and the toolroom has been checked by the instructor.

Ordering Parts and Supplies

Ordering parts or supplies requires an invoice number generated from the AUTO office shop computer – SHOP KEY APPLICATION.

Then, once this Invoice number is acquired from the AUTO office shop computer, a Purchase Order number is also generated – PURCHASING MANAGER APPLICATION - from the same computer. This Purchase Order also has the Invoice Number as part of its identification. NOW YOU ARE READY TO PICK UP THE PHONE AND ORDER PARTS WITH THE APPROPRIATE PURCHASE ORDER NUMBER. NOTHING CAN BE ORDERED WITHOUT A PURCHASE ORDER NUMBER REFERENCING AN INVOICE NUMBER.

Students should check parts as soon as they are received to make sure they are right. Match the new part with the old one or with the car. Inform the instructor immediately if the part is not right.

Save all old parts until the job is over. Lock parts in the trunk and be sure to keep trunk clean. Do not store parts on vehicle seats.

Be careful with the box or container that the new parts come in. The box may be needed to return a core or to return the part if it is not right The box may help determine why we got the wrong part.

Students are responsible for the parts they receive. Don't leave parts where they might get stolen. Keep them safely locked overnight in a locker or in the trunk.

Customer Car Procedures

LAS POSITAS COLLEGE Auto Shop can only work on cars belonging to students, teachers or staff. However, only if the work corresponds with the current course outline.

Fill out the ESTIMATE completely on each customer car. Include odometer reading, license, year, make and model of car, as well as specific problems that are to be fixed and symptoms the customer has noticed. Get the customer's daytime, evening and, if applicable, cell phone numbers. California Law dictates that the customer MUST SIGN THE ESTIMATE prior to our shop working on the vehicle. We keep a signed copy of this estimate and the customer must also have one before they leave. THEN WE CAN WORK ON THE CAR! WE HAVE A SIGNED ESTIMATE AND SO DOES THE CUSTOMER.

Check the car for obvious damage (condition prior to service) before customer leaves.

Vehicles can only be driven in parking lot of LAS POSITAS COLLEGE. However, it may be necessary to test drive a customer's vehicle (with the customer or instructor) on the street in order to pinpoint a problem.

Cars must have at least a quarter tank of gas. Customer must leave all keys to car, including trunk key and gas cap key.

Keys must be put on a key tag. Write on key tag: customer name, license number, year, make, model and hat number (on top of car).

It is the responsibility of the student taking in the car to explain to the customer that:

A) Car must be paid for in full when customer picks it up. CHECKS OR CASH ONLY.

B) Cars can only be picked up between 9:30 AM and 12:00 noon or between 2:30 and 5:00 PM.

C) Cars are released only when jobs are completed and Invoices are "signed off " by the instructor in the AUTO office shop computer. The computer will state "Job Completed" and any necessary notes will be posted on the Invoice.

D) If repair estimate is over $100, customer must pay for parts before they can be ordered. Prices for repairs are calculated as follows:

Parts: "list" price for parts (no discounts).

Shop Fee: based on "flat rate" labor time at $20 per hour.

All labor and new parts supplied by LAS POSITAS COLLEGE not guaranteed. If anything doesn't seem right with a repair performed in the LAS POSITAS COLLEGE Shop, encourage the customer to bring the vehicle back so that the class that did the work can check the vehicle.

Code of Conduct for Students

Automotive Technology students are required to handle themselves in a professional manner with the highest ethics in work habits which includes, but is not limited to, the utmost respect for each other, school property and customers' vehicles. Professionalism includes:

Working toolroom detail to the letter as specified by your instructor.

Cleaning your work area which will usually include helping others clean their areas. Cleaning includes floors, walls, benches, hoists, equipment, tools and any other item specified by your instructor.

Being absolutely certain that any vehicle you have worked on or are still working on at the end of your shop period is:

Parked appropriately

Trunk and hood locked

All doors locked

Keys put back in the proper office

All windows rolled upor toolroom board

Being In proper uniform/attire during all shop work.

Not cheating during any written and/or manipulative testing.

CHEATING

Any student who cheats on any test given in any Automotive Technology class will be given an automatic grade of "F" on that test. This includes giving information to another student. In other words, it doesn't matter if you are copying from someone else, or your friend is copying from you. Both of you will get "F's" on the test and be subject to other disciplinary procedures decided by the instructor. It is better to flunk on your own than to cheat.

ASE/NATEF

January 23, 2020 Program ID: 100675

Mr. Brian Hagopian

Cooridinator

Las Positas College

3000 Campus Hill Drive

Livermore, CA 94551

Dear Mr. Hagopian:

Complete evaluation results of the technician-training program at Las Positas College has been received and reviewed.

Congratulations! I am pleased to inform you that your program meets the strict industry standards required for Master Automobile Service Technology Accreditation. This is the highest level of program accreditation recognized by the National Institute for Automotive Service Excellence (ASE).

Although many educational institutions strive for it, only a small percentage achieves this accreditation. Both the educational and automotive communities should be proud of your commitment to quality Automobile training programs.

To acknowledge your accomplishment, we are creating a plaque for you that will recognize your school and the level of accreditation your program has obtained.

Again, congratulations on your achievement.

Sincerely,

Michael Coley

President

Accreditation Expiration Date: 2/1/2025

The 5-Step Accreditation Process

STEP 1: Getting Started
Review the program standards. You will need these to begin the accreditation process. We recommend that you download the document and save it to your local computer so that you can easily access it throughout the accreditation process.

STEP 2: Program Self-Evaluation See the Self-Evaluation Guide
1. Prepare all files and documentation for review based on each program standard
2. Extensive self-evaluation performed by program advisory committee members
3. Program is reviewed and assessed against the national standards
4. Make any necessary program improvements based on results of self-evaluation

STEP 3: ASE Education Foundation Review
1. Program submits application which includes a summary of the self-evaluation
2. The application is reviewed by the ASE Education Foundation
3. Decision is made whether the program qualifies for an on-site evaluation or if improvements are required

STEP 4: On-Site Evaluation
On-site evaluation of program is conducted by an Evaluation Team Leader (ETL) who is an ASE Certified Master Technician and trained to perform the evaluation by the ASE Education Foundation.

All items listed below must be provided to the ETL at least two weeks prior to the scheduled evaluation date(s) and you can complete these in the portal:

1. Completed On-site Evaluation Agreement
2. Copies of Advisory Committee Meeting Minutes
3. List of (6) graduates who completed the program within the past 3 years and are employed locally. Include the name of the graduate, their supervisor, and the address and phone number of the place of employment.
4. Course of Study
I. Syllabus for each class
II. Tasks to be taught specified by Priority designations
III. Number of contact hours
IV. Sequence of instruction to be included in the program
V. List of training materials used
VI. Sample evaluation form used to track student progress

STEP 5: Program Accreditation & Ongoing Reviews
After industry requirements are met, the program is awarded ASE Accreditation for a 5-year period from the date of accreditation/renewal of accreditation.

To maintain accreditation status during this period, programs are asked to review their activities to ensure that standards are being upheld. The ASE Education Foundation requires that programs complete the 2 1/2 year compliance review to remain accredited. The compliance review is designed to help the program determine needed improvements prior to the 5-year renewal process. This process begins with the Program Evaluation by Advisory Committee.

High School Student Articulation

Las Positas College and local high schools have teamed up to offer credit for the AUTO INTR class by taking the automotive class at your high school.

General information on Articulation can be found here.

In the table below are the classes and high schools that currently offer articulation. Students taking these classes can receive credit for AUTO INTR. For more information about your high school's process, speak with your high school automotive instructor.

High School/ROP	Courses	Las Positas Course	Units	Expiration
Amador Valley	Auto Specialist	AUTO INTR: Automotive Service and Introduction	4.0	Spring 2022
Dublin	Auto Specialist	AUTO INTR: Automotive Service and Introduction	4.0	Spring 2022
Foothill	Auto Specialist	AUTO INTR: Automotive Service and Introduction	4.0	Spring 2022
Granada	Auto Specialist	AUTO INTR: Automotive Service and Introduction	4.0	Spring 2022
Livermore	Auto Specialist	AUTO INTR: Automotive Service and Introduction	4.0	Spring 2022
Tri-Valley ROP	Auto Specialist	AUTO INTR: Automotive Service and Introduction	4.0	Spring 2022

Contact

Program Coordinator/Automotive Professor

Brian Hagopian office phone: 925-424-1171 Email:bhagopian@laspositascollege.edu