

CUYAMACA COLLEGE
ACADEMIC PROGRAM CHANGES
March 2021
for the
2021-2022 CATALOG

COURSE ADDITIONS

AUTOMOTIVE TECHNOLOGY 121L – AUTOMATIC TRANSMISSION THEORY AND OPERATION LABORATORY **1 UNIT**

Prerequisite: None
3 hours laboratory

This laboratory course allows a student to practice proper operation, disassembly, and assembly for automatic transmissions. Students will record and demonstrate critical clearance measurements. This course is complemented by AUTO 121 Automatic Transmission Theory and Operation lecture, AUTO 121T Automatic Transmission Theory and Operation Assessment Test Out, and/or for students taking Work Experience who need additional instruction and practice completing required ASE competencies and tasks.

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AUTOMOTIVE TECHNOLOGY 126L – AUTOMATIC TRANSMISSION DIAGNOSIS AND TESTING LABORATORY **1 UNIT**

Prerequisite: None
3 hours laboratory

This laboratory course describes and demonstrates proper operation, disassembly, assembly, repair, and diagnostic techniques for various automatic transmission types and designs, including FWD and RWD. The course also includes automatic transmission component diagnosis for electronic, hydraulic and mechanical subsystems. This course is the lab for students taking AUTO 126 Automatic Transmission Diagnosis and Testing lecture, and/or for students taking Work Experience who need additional instruction and practice completing required ASE competencies and tasks.

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AUTOMOTIVE TECHNOLOGY 126T – AUTOMATIC TRANSMISSION DIAGNOSIS AND TESTING ASSESSMENT TEST OUT **.5 UNIT**

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in AUTO 121T Automatic Transmission Theory and Operation Assessment Test Out and AUTO 162T Electronics Diagnosis and Repair Assessment Test Out.

1.5 hours laboratory

This assessment course includes summative and criterion tests for students to prove knowledge, skills and abilities to perform diagnosis and repair of automatic transmission systems in the department laboratory; or by using distance education technologies such as augmented reality, virtual reality, or mobile technologies. The tests will include automatic transmission component diagnosis for electronic, hydraulic, and mechanical subsystems. This course allows a student residing at a distance from training centers to complete certification requirements. This course is complemented by work experience, AUTO 126 lecture, and AUTO 126L lab.

AUTOMOTIVE TECHNOLOGY 132L – DIFFERENTIAL AND 4WD SYSTEMS LABORATORY **1 UNIT**

Prerequisite: None
3 hours laboratory

This laboratory course describes and demonstrates proper operation, disassembly, assembly, repair, and diagnostic techniques for various differentials, transfer cases, and axles of standard and 4WD, and all-wheel drive systems types and designs, including electronic shift and hub locking. This course is the lab for students taking courses AUTO 132 Lecture, AUTO 132T Assessment Test Out, and/or for students taking Work Experience who need additional instruction and practice completing required ASE competencies and tasks.

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AUTOMOTIVE TECHNOLOGY 132T – DIFFERENTIAL AND 4WD SYSTEMS ASSESSMENT TEST OUT **.5 UNIT**

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in AUTO 162T Electronics Diagnosis and Repair Assessment Test Out.

1.5 hours laboratory

This assessment course includes summative and criterion tests using actual differential and 4WD repair techniques. This course allows a student to demonstrate knowledge of proper operation, disassembly, assembly, repair; and diagnostic techniques for various differentials, axles, 4WD, All-Wheel drive types and designs including electronic controls in the department laboratory or by using distance education technologies, live demonstrations, and recordings of work. The assessments will include various tests using differentials and transfer cases, gears, assemblies, and vehicle symptoms and conditions. This course allows a student residing at a distance from training centers to complete manufacturers certification requirements. This course accompanies AUTO 132L Differential and 4WD Systems Lab, 132 Lecture, and Work Experience classes.

AUTOMOTIVE TECHNOLOGY 143L – STEERING AND SUSPENSION DIAGNOSIS AND REPAIR LABORATORY **1 UNIT**

Prerequisite: None

3 hours laboratory

This laboratory course describes and demonstrates proper operation, disassembly, assembly, repair, and diagnostic techniques for various suspension and steering components. This course is the lab for students taking courses AUTO 143 Steering and Suspension Diagnosis and Repair Lecture, AUTO 1431T Steering and Suspension Diagnosis and Repair Assessment Test Out, and/or for students taking Work Experience who need additional instruction and practice completing required ASE competencies and tasks.

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AUTOMOTIVE TECHNOLOGY 143T – STEERING AND SUSPENSION DIAGNOSIS AND REPAIR ASSESSMENT TEST OUT **.5 UNIT**

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in AUTO 162T Electronics Diagnosis and Repair Assessment Test Out.

1.5 hours laboratory

This assessment course includes summative and criterion tests using actual suspension and steering description, diagnosis, and repair. This course allows a student to demonstrate knowledge of proper operation, disassembly, assembly, repair, and diagnostic techniques for various suspension and steering types and designs, including electronic controls in the department laboratory, or by using distance education technologies, live demonstrations, and recordings of work. The assessments will include various tests using vehicles with symptoms and conditions. This course allows a student residing at a distance from training centers to complete ASE certification requirements. This course accompanies AUTO 143L Steering and Suspension Diagnosis and Repair Laboratory, 143 Steering and Suspension Diagnosis and Repair lecture, and Work Experience classes.

AUTOMOTIVE TECHNOLOGY 144L – NOISE, VIBRATION AND HARSHNESS LABORATORY **1 UNIT**

Prerequisite: None

3 hours laboratory

This laboratory course describes and demonstrates proper inspection and diagnostic techniques for various Noise, Vibration, and Harshness (NVH) symptoms and conditions. This course is the lab for students taking courses AUTO 144 Noise, Vibration, and Harshness lecture, AUTO 144T Noise, Vibration, and Harshness Assessment Test Out, and/or for students taking Work Experience. This course assists ASE task completions related to noise and vibration concerns.

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AUTOMOTIVE TECHNOLOGY 144T – NOISE, VIBRATION AND HARSHNESS ASSESSMENT TEST OUT **.5 UNIT**

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in AUTO 161T Electronics Diagnosis and Repair Assessment Test Out.

1.5 hours laboratory

This assessment course includes summative and criterion tests using actual noise and vibration concerns, diagnosis, and repair procedures. This course allows a student to demonstrate knowledge of proper diagnostic techniques for various Noise, Vibration, and Harshness (NVH) concerns in the department laboratory or by using distance education technologies, live demonstrations, and recordings of work. The assessments will include various tests using vehicles with symptoms and conditions. This course allows a student residing at a distance from training centers to complete ASE certification requirements. This course compliments AUTO 144L Noise, Vibration, and Harshness Laboratory, 144 Noise, Vibration, and Harshness Lecture, and Work Experience classes.

AUTOMOTIVE TECHNOLOGY 151L – BRAKE SYSTEM DIAGNOSIS AND REPAIR LABORATORY **1 UNIT**

Prerequisite: None

3 hours laboratory

This laboratory course describes and demonstrates proper inspection and diagnostic techniques for various brake symptoms and conditions. This course is the lab for students taking courses AUTO 151 Brake Diagnosis and Repair Lecture, AUTO 151T Brake Assessment Test Out, and/or for students taking Work Experience who need additional instruction and practice completing required ASE competencies and tasks.

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AUTOMOTIVE TECHNOLOGY 153L – ADVANCED BRAKE SYSTEM DIAGNOSIS AND REPAIR LABORATORY **1 UNIT**

Prerequisite: None

3 hours laboratory

This laboratory course describes and demonstrates proper inspection and diagnostic techniques for various electronic brake symptoms and conditions. Electronic braking system components and operation are included in this course. This course is the lab for students taking courses AUTO 153 Advanced Brake System Diagnosis and Repair Lecture, AUTO 153T Advanced Brake System Assessment Test Out, and/or for students taking Work Experience who need additional instruction and practice completing required ASE competencies and tasks.

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AUTOMOTIVE TECHNOLOGY 153T – ADVANCED BRAKE SYSTEM ASSESSMENT TEST OUT **.5 UNIT**

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in AUTO 162T Electronics Diagnosis and Repair Assessment Test Out and AUTO 151T Brake System Diagnosis and Repair Assessment Test Out or equivalent.

1.5 hours laboratory

This portfolio assessment course includes summative and criterion tests for students to prove knowledge, skills, and abilities to perform diagnosis and repair of active brake systems on vehicles in the department laboratory; or by using distance education technologies such as augmented reality or virtual reality. The tests will include recorded and live student demonstrations used for observation and assessment. This course allows a student residing at a distance from training centers to complete certification requirements prior to performing warranty service at a dealership. This course is complemented by AUTO 153 Advanced Brake System Diagnosis and Repair lecture, AUTO 153L Advanced Brake System Lab, and by Work Experience at a dealership.

AUTOMOTIVE TECHNOLOGY 171L – CLIMATE CONTROL SYSTEM DIAGNOSIS AND REPAIR LABORATORY **1 UNIT**

Prerequisite: None

3 hours laboratory

This laboratory course describes and demonstrates proper inspection and diagnostic techniques for various electronic climate control symptoms and conditions. This course is the lab for students taking courses AUTO 171 Climate Control System Diagnosis lecture, AUTO 171T Climate Control System Assessment Test Out, and/or for students taking a Work Experience course who need additional instruction and practice completing required ASE competencies and tasks.

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AUTOMOTIVE TECHNOLOGY 171T – CLIMATE CONTROL SYSTEM DIAGNOSIS AND REPAIR ASSESSMENT TEST OUT **.5 UNIT**

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in AUTO 162T Electronics Diagnosis and Repair Assessment Test Out.

1.5 hours laboratory

This portfolio assessment course includes summative and criterion tests for students to prove knowledge, skills, and abilities to perform diagnosis and repair of climate control systems on vehicles in the department laboratory, or by using distance education technologies, such as augmented reality or virtual reality. The tests will include recorded and live student demonstrations used for observation and assessment. This course allows a student residing at a distance from training centers to complete certification requirements prior to performing warranty service at a dealership. This course is complemented by AUTO 171 Climate System Diagnosis lecture, AUTO 171L Climate Diagnosis Lab, and by Work Experience at a dealership.

AUTOMOTIVE TECHNOLOGY 181L – ENGINE PERFORMANCE I IGNITION AND FUEL SYSTEMS LABORATORY **1 UNIT**

Prerequisite: None

3 hours laboratory

This laboratory course demonstrates proper inspection and diagnostic techniques for various engine performance symptoms and conditions, including ignition and fuel systems operations. This course is the laboratory practice opportunity for students taking courses AUTO 181 Engine Performance I Ignition and Fuel Systems lecture, AUTO 181T Engine Performance I Ignition and Fuel Systems Assessment Test Out, and for students taking Work Experience to attain required ASE competencies.

AUTOMOTIVE TECHNOLOGY 183L – ENGINE PERFORMANCE II INTAKE EXHAUST EMISSION SYSTEMS LABORATORY **1 UNIT**

Prerequisite: None

3 hours laboratory

This laboratory course describes and demonstrates proper inspection and diagnostic techniques for various engine performance symptoms and conditions, including intake and exhaust systems operations. This course is the laboratory opportunity for students taking courses AUTO 183 Engine Performance II Intake Exhaust Emission Systems lecture, AUTO 183T Engine Performance II Intake Exhaust Emission Systems Assessment Test Out, and for students taking Work Experience for required ASE competencies.

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AUTOMOTIVE TECHNOLOGY 183T – ENGINE PERFORMANCE II INTAKE EXHAUST EMISSION SYSTEMS ASSESSMENT TEST OUT **.5 UNIT**

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" 162T Electronics Diagnosis and Repair Assessment Test Out or the equivalent.

1.5 hours laboratory

This assessment course includes summative and criterion tests for students to prove knowledge, skills, and abilities to perform diagnosis and repair of engine performance systems on vehicles in the department laboratory, or by using distance education technologies such as augmented reality or virtual reality. The tests will include recorded and live student demonstrations used for observation and assessment. This course allows a student residing at a distance from training centers to complete ASE certification requirements. This course is the assessment for AUTO 183 Engine Performance II Intake Exhaust Emission Systems lecture, AUTO 183L Engine Performance II Intake Exhaust Emission Systems Laboratory, and Work Experience courses.

AUTOMOTIVE TECHNOLOGY 194L – DIESEL ENGINE PERFORMANCE AND DIAGNOSIS LABORATORY **1 UNIT**

Prerequisite: None

3 hours laboratory

This laboratory course describes and demonstrates proper inspection and diagnostic techniques for various diesel engine performance symptoms and conditions, including fuel systems operations. This course is the laboratory practice opportunity for students taking courses AUTO 194 Diesel Engine Performance and Diagnosis lecture, and Diesel Engine Performance and Diagnosis Assessment Test Out, and/or for students taking a Work Experience course who need additional instruction and practice completing required ASE competencies and tasks.

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AUTOMOTIVE TECHNOLOGY 194T – DIESEL ENGINE PERFORMANCE AND DIAGNOSIS ASSESSMENT TEST OUT **.5 UNIT**

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in AUTO 162T Electronics Diagnosis and Repair Assessment Test Out or the equivalent.

1.5 hours laboratory

This portfolio assessment course includes summative and criterion tests for students to prove knowledge, skills, and abilities to perform diagnosis and repair of diesel engine performance systems on vehicles in the department laboratory, or by using distance education technologies such as augmented reality or virtual reality. The tests will include recorded and live student demonstrations used for observation and assessment. This course allows a student residing at a distance from training centers to complete certification requirements prior to performing warranty service at a dealership. This course is the assessment of AUTO 194 Diesel Engine Performance and Diagnosis lecture, AUTO 194L Diesel Engine Performance and Diagnosis Lab, and is complemented by Work Experience at a dealership.

AUTOMOTIVE TECHNOLOGY 211 – AUTOMOTIVE CUSTOMER SERVICE**2 UNITS**

Prerequisite: None

2 hours lecture

This lecture course prepares students to work in the automotive industry as a service consultant, parts department representative, sales associate, or similar customer service position where communication skills are paramount to customer satisfaction and business success.

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AUTOMOTIVE TECHNOLOGY 213 – ASCCA – WORK EXPERIENCE**1-4 UNITS**

Prerequisite: None

75 hours paid work experience per unit, 1-4 units

Automotive Service Councils of California (ASCCA) work experience. Students will attain a sponsoring automotive repair business or approved affiliated business at the start of the training program. This course may be paid work experience at the sponsoring Automotive Repair Dealer (ARD). Students work in the area of emphasis that is concurrent with area of training most recently completed at the college, in order to develop skills attained in the ASE content. *Occupational cooperative work experience credit may accrue at the rate of one to eight units per semester for a total of twelve - sixteen units, and students must work 75 paid hours per unit earned.* Twelve - sixteen units must accrue for graduation or certification.

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AUTOMOTIVE TECHNOLOGY 263 – ADVANCED ELECTRONICS**1 UNIT**

Prerequisite: None

1 hour lecture

This lecture course will demonstrate and describe how to program software and perform module updates to networked systems. Examples of anti-theft and remote entry with advanced inputs and out-puts may have module related concerns requiring hard fault diagnosis of modules, and networks using integrated scan tools, and tests of network signals using lab scopes for intermittent network concerns. This course is the lecture course accompanying AUTO 263L Advanced Electronics Laboratory, and AUTO 263T Advanced Electronics Assessment Test Out. Work Experience courses at an automotive workplace support competency practice and evaluations critical for student success.

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AUTOMOTIVE TECHNOLOGY 263L – ADVANCED ELECTRONICS LABORATORY**1 UNIT**

Prerequisite: None

3 hours laboratory

This laboratory course describes and demonstrates proper inspection and diagnostic techniques for various network symptoms and conditions, including programming and fault symptom processes. This course is the laboratory practice opportunity for students taking courses AUTO 263 Advanced Electronics lecture, AUTO 263T Advanced Electronics Assessment Test Out, and/or for students taking a Work Experience course who need additional instruction and practice completing required ASE competencies and tasks required for certification.

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AUTOMOTIVE TECHNOLOGY 263T – ADVANCED ELECTRONICS ASSESSMENT TEST OUT**.5 UNIT**

Prerequisite: "C" grade or higher or "Pass" in AUTO 162T Electronics Diagnosis and Repair Assessment Test Out or the equivalent.

1.5 hours laboratory

This portfolio assessment course includes summative and criterion tests for students to prove knowledge, skills, and abilities to perform diagnosis and repair of engine network systems on vehicles in the department laboratory, or by using distance education technologies such as augmented reality or virtual reality. The tests will include recorded and live student demonstrations used for observation and assessment. This course allows a student residing at a distance from training centers to complete certification requirements prior to performing warranty service at a dealership. This course is the assessment of AUTO 263 Advanced Electronics lecture, and AUTO 263L Advanced Electronics Lab. Work Experience at a dealership will ensure a student is prepared to perform network service and repair based on competency evaluation.

AUTOMOTIVE TECHNOLOGY 264L – HYBRID AND ELECTRIC VEHICLE OPERATION AND DIAGNOSIS LABORATORY**1 UNIT**

Prerequisite: None

3 hours laboratory

This laboratory course describes and demonstrates proper inspection and diagnostic techniques for various hybrid and electric vehicle symptoms and conditions, including high voltage battery and fault symptom processes. This course is the laboratory practice opportunity for students taking courses AUTO 264 Hybrid and Electric Vehicle Operation and Diagnosis lecture, AUTO 264T Hybrid and Electric Vehicle Operation and Diagnosis Assessment Test Out, and/or for students taking a Work Experience course who need additional instruction and practice completing required ASE competencies and tasks required for certification.

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AUTOMOTIVE TECHNOLOGY 264T – HYBRID AND ELECTRIC VEHICLE OPERATION AND DIAGNOSIS ASSESSMENT TEST OUT**.5 UNIT**

Prerequisite: "C" grade or higher or "Pass" in AUTO 162T Electronics Diagnosis and Repair Assessment Test Out or the equivalent.

1.5 hours laboratory

This portfolio assessment course includes summative and criterion tests for students to prove knowledge, skills, and abilities to perform diagnosis and repair of automotive hybrid and electric vehicle systems in the department laboratory; or by using distance education technologies such as augmented reality, virtual reality, or mobile technologies. The tests include high voltage electronic component diagnosis and repair using scan tools, digital multi-meters, and lab scopes. This course allows a student residing at a distance from training centers to complete certification requirements. This course is complemented by Work Experience, AUTO 264 Hybrid and Electric Vehicle Operation and Diagnosis lecture, and AUTO 264L Hybrid and Electric Vehicle Operation and Diagnosis Laboratory courses.

AUTOMOTIVE TECHNOLOGY 283L – ADVANCED ENGINE PERFORMANCE LABORATORY **1 UNIT**

Prerequisite: "C" grade or higher or "Pass" or the equivalent in: AUTO 162T Electronics Diagnosis and Repair Assessment Test Out, and 181T Engine Performance I Ignition and Fuel Systems Assessment Test Out, and 183T Engine Performance II Intake Exhaust Emission Systems Assessment Test Out.

3 hours laboratory

This laboratory course describes and demonstrates proper inspection and diagnostic techniques for various advanced engine performance symptoms and conditions, including intermittent problems affecting ignition and fuel systems operations. This course is the laboratory practice opportunity for students taking courses AUTO 283 Advanced Engine Performance lecture, AUTO 283T Advanced Engine Performance Assessment Test Out, and/or for students taking a Work Experience course and need additional instruction and practice completing required ASE competencies.

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AUTOMOTIVE TECHNOLOGY 283T – ADVANCED ENGINE PERFORMANCE ASSESSMENT TEST OUT **.5 UNIT**

Prerequisite: "C" grade or higher or "Pass" or the equivalent in: AUTO 162T Electronics Diagnosis and Repair Assessment Test Out, and 181T Engine Performance I Ignition and Fuel Systems Assessment Test Out, and 183T Engine Performance II Intake Exhaust Emission Systems Assessment Test Out

1.5 hours laboratory

This assessment course includes summative and criterion tests for students to prove knowledge, skills, and abilities to perform diagnosis and repair of advanced engine performance systems on vehicles in the department laboratory, or by using distance education technologies such as augmented reality or virtual reality. The tests will include recorded and live student demonstrations used for observation and assessment. This course allows a student residing at a distance from training centers to complete ASE certification requirements. This course is the assessment of AUTO 283 Advanced Engine Performance lecture, AUTO 283L Advanced Engine Performance Laboratory, and is complemented by Work Experience courses.

AUTOMOTIVE TECHNOLOGY 284L – LEVEL I INSPECTOR TRAINING EMISSION CONTROL LICENSE LABORATORY **1 UNIT**

Prerequisite: None

3 hours laboratory

This laboratory course describes and demonstrates proper inspection and testing techniques for various emission systems and conditions including, exhaust, evaporative fuel controls, monitors, forced air, and normally aspirated. This course is the laboratory practice opportunity for students taking courses AUTO 284 Level I Inspector Training lecture, AUTO 284T Level I Inspector Training Assessment Test Out, and/or for students taking a Work Experience course at a Smog Inspection Station who need additional instruction and practice completing required ASE competencies and tasks required to properly perform inspections.

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AUTOMOTIVE TECHNOLOGY 284T – LEVEL I INSPECTOR TRAINING EMISSION CONTROL LICENSE ASSESSMENT TEST OUT **.5 UNIT**

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in AUTO 162T Electronics Diagnosis and Repair Assessment Test Out, AUTO 181T Engine Performance I Ignition and Fuel Systems Assessment Test Out, and AUTO 183 Engine Performance II Intake, Exhaust and Emission Systems Assessment Test Out.

1.5 hours laboratory

This assessment course includes summative and criterion tests for students to prove knowledge, skills, and abilities to perform emission system inspections in the department laboratory, or by using distance education technologies such as augmented reality or virtual reality. The tests will include recorded and live student demonstrations used for observation and assessment. This course allows students residing at a distance from training centers to complete certification requirements prior to performing warranty service at a dealership. This course is the assessment of AUTO 284 Inspector Level I Emissions lecture, AUTO 284L Level I Inspector Emission Training Lab, and complemented by Work Experience at a Smog Inspection Station.

AUTOMOTIVE TECHNOLOGY 285L – LEVEL II INSPECTOR TRAINING EMISSION CONTROL LICENSE LABORATORY **1 UNIT**

Prerequisite: None

3 hours laboratory

This laboratory course is designed for students with vast engine performance experience and knowledge to perform complete smog inspections on various vehicles and designs. This course is the laboratory practice opportunity for students taking courses AUTO 285 Level II Inspector Training lecture, AUTO 285T Level II Inspector Training Assessment Test Out, and/or for students taking a Work Experience course at a Smog Inspection Station who need additional instruction and practice completing required ASE competencies and tasks required to properly perform inspections.

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AUTOMOTIVE TECHNOLOGY 285T – LEVEL II INSPECTOR TRAINING EMISSION CONTROL LICENSE ASSESSMENT TEST OUT **.5 UNIT**

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in AUTO 162T Electronics Diagnosis and Repair Assessment Test Out, AUTO 181T Engine Performance I Ignition and Fuel Systems Assessment Test Out, AUTO 183 Engine Performance II Intake, Exhaust and Emission Systems Assessment Test Out and AUTO 284T Inspector Level I Emissions Control License Training Assessment Test Out.

1.5 hours laboratory

This assessment course includes summative and criterion tests for students to prove knowledge, skills, and abilities to perform emission system inspections in the department laboratory, or by using distance education technologies such as augmented reality or virtual reality. The tests include recorded and live student demonstrations used for observation and assessment. This course allows students residing at a distance from training centers to complete certification requirements prior to performing inspections at a Smog Test Station. This course is the assessment of AUTO 285 Inspector Level II Emissions lecture, AUTO 285L Level II Inspector Emission Training Lab, and is complemented by Work Experience at a Smog Inspection Station. This course may be used to satisfy BAR citation requirements.

ETHNIC STUDIES 118 – U.S. HISTORY: CHICANO/CHICANA PERSPECTIVES I **3 UNITS**

Prerequisite: None

3 hours lecture

Historical survey of Mexican Americans in the United States in which attention is given to social, political and economic background, with an emphasis on the origins of basic American institutions and ideals. Particular emphasis on the development of Spanish-speaking peoples' economic, social, political, and racialized experience in the United States, especially in the Southwest from the pre-contact period to the Mexican American War. *Also listed as HIST 118. Not open to students with credit in HIST 118.*

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ETHNIC STUDIES 119 – U.S. HISTORY: CHICANO/CHICANA PERSPECTIVES II **3 UNITS**

Prerequisite: None

3 hours lecture

Historical survey of Mexican Americans in the United States in which attention is given to the social, political, and economic background, including explorations of the U.S. and California constitutions and interactions between federal, state, and local governments. Particular emphasis on the economic, social and political experiences of Mexican Americans and Latinas/os/x in the United States, including migration, colonization, racialization, discrimination, assimilation, social stratification, liberation movements, and the intersection of racial, ethnic, gender, sexual identities, especially in the Southwest from the Mexican-American War to the present. *Also listed as HIST 119. Not open to students with credit in HIST 119.*

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ETHNIC STUDIES 130 – U.S. HISTORY AND CULTURES: NATIVE AMERICAN PERSPECTIVES I **3 UNITS**

Prerequisite: None

3 hours lecture

This course covers the social, political, cultural, economic, and intellectual history of indigenous groups in North America from pre-history to 1850. Areas of focus include: Native American perspectives of native and non-native cultures, the influence of Native Americans on the Federal Constitution and the U.S. political system, the impact of legislation on Native Americans, and Native American resistance and adaptability in response to land encroachment, racial and ethnic discrimination, and assimilation strategies. *Also listed as HIST 130. Not open to students with credit in HIST 130.*

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ETHNIC STUDIES 131 – U.S. HISTORY AND CULTURES: NATIVE AMERICAN PERSPECTIVES II **3 UNITS**

Prerequisite: None

3 hours lecture

This course covers the social, political, cultural, economic, and intellectual history of indigenous groups in North America from 1850 to the present. Areas of focus include: Native American perspectives of native and non-native cultures, the portrayal and influence of Native Americans in popular culture, the influence of Native Americans on the California State Constitution and government, the impact of State and Federal legislation on Native Americans, and Native American agency and resistance movements in the struggle for civil and political rights and indigenous sovereignty. *Also listed as HIST 131. Not open to students with credit in HIST 131.*

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ETHNIC STUDIES 132 – KUMEYAAY HISTORY I: PRECONTACT - 1845 **3 UNITS**

Prerequisite: None

3 hours lecture

Historical survey of the Kumeyaay Nation from prehistoric times to 1845. Focus will be on Kumeyaay perspectives of Kumeyaay and non-Kumeyaay cultures; Kumeyaay oral history as it relates to the Creation Story, bird songs, ceremonies, religion and peon games; tribal sovereignty; sociopolitical clan structures; and the evolution of Kumeyaay leadership. Special emphasis will be given to the health and morbidity of indigenous populations and their labor in relation to the Mission San Diego de Alcalá and historic ranchos in San Diego County. *Also listed as HIST 132. Not open to students with credit in HIST 132.*

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ETHNIC STUDIES 133 – KUMEYAAY HISTORY II: 1846 - PRESENT **3 UNITS**

Prerequisite: None

3 hours lecture

Historical survey of the Kumeyaay Nation from 1846 to the present. Focus will be on Kumeyaay perspectives of Kumeyaay and non-Kumeyaay cultures, creation of Kumeyaay reservations, Mission Indian Federation, Public Law 83-280, Indian self-determination, Indian Gaming Regulatory Act, contemporary tribal governments, landmark Indian Gaming court cases, and an overview of laws pertaining to Native Americans in the United States. Special emphasis will be given to contemporary issues affecting the Kumeyaay Nation and Kumeyaay tribal governments, including socioeconomic deficits, tribal sovereignty, blood quantum, tribal enrollment, demographic challenges, language loss and acquisition, historical trauma, and the growing equity gaps among tribes without casinos. *Also listed as HIST 133. Not open to students with credit in HIST 133.*

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ETHNIC STUDIES 180 – U.S. HISTORY: BLACK PERSPECTIVES I **3 UNITS**

Prerequisite: None

3 hours lecture

United States history with an emphasis on social, economic, political and cultural experiences of Black people. Traces the development of African American history from African origins through the period of Reconstruction, with a focus on agency, resistance, self-determination, and liberation. *Also listed as HIST 180. Not open to students with credit in HIST 180.*

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ETHNIC STUDIES 181 – U.S. HISTORY: BLACK PERSPECTIVES II

3 UNITS

Prerequisite: None

3 hours lecture

Examination of significant aspects of United States history from the aftermath of the Civil War to the present, including explorations of the U.S. and California constitutions and interactions between federal, state, and local governments. Emphasis is on the socio-economic, political, and cultural experiences of African Americans in the United States from Reconstruction to the present, with a focus on agency, resistance, self-determination, and liberation. *Also listed as HIST 181. Not open to students with credit in HIST 181.*
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COURSE MODIFICATIONS

The following reflect changes in subject designator, course number and/or title, prerequisite/corequisite/recommended preparation, units, hours, and/or course description. Other areas (e.g., course objectives, course content, student learning outcomes, etc.) may also have been modified to meet Title 5 standards (reflected as "Review and update of course outline"). These modifications have been carefully reviewed by the Curriculum, General Education and Academic Policies and Procedures Committee.

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
<p>AUTOMOTIVE TECHNOLOGY 099 – INTRODUCTION TO AUTOMOTIVE TECHNOLOGY This course presents basic information about automotive systems as a recommended preparation course for students interested in the Automotive Technology major.</p>	<p>This course presents a basic overview of information about automotive systems. This course serves as a recommended preparation course for students interested in the Automotive Technology major, or for students who want to gain knowledge about vehicle servicing and repair. This course is complemented by AUTO 100L Laboratory where students are able to perform minor inspections, tests, and services to training vehicles using the department laboratory.</p>
<p>AUTOMOTIVE TECHNOLOGY 100 – INTRODUCTION TO AUTOMOTIVE TECHNOLOGY LAB Basic laboratory environment designed to prepare students for entry into the Automotive Technology major. Covers repairing, servicing and basic diagnostic procedures of a typical passenger car or light truck.</p>	<p>AUTOMOTIVE TECHNOLOGY 100L – INTRODUCTION TO AUTOMOTIVE TECHNOLOGY LABORATORY Basic laboratory environment designed to prepare students for entry into the Automotive Technology major. This course includes repair, service, and basic diagnostic procedures of a typical passenger car or light truck. A student may use the department laboratory to perform hands on tests and repairs, using automotive tools and equipment. AUTO 100L is the lab companion course of AUTO 99 Introduction to Automotive Technology lecture.</p>
<p>AUTOMOTIVE TECHNOLOGY 129 – INTRODUCTION TO HYBRID, ELECTRIC AND ALTERNATIVE FUELED VEHICLES Prerequisite: None</p> <p>3 hours lecture, 6 hours laboratory, 5 units Introductory course in the study of hybrid, electric, alternative fuels and their delivery systems for automotive and light trucks. The main focus is on hybrid vehicles; additionally, electric and alternative fueled vehicles will be covered to include alcohol, diesel, CNG (Compressed Natural Gas) and LPG (Liquefied Petroleum Gas) systems. Fuel cell technologies will be discussed. Topics include environmental and political concerns, pros and cons of various alternative fuels, and hybrid and electric options. Proper safety procedures for CNG, LPG, hybrid, electric and diesel systems will be emphasized. The properties, chemical structure, and safety concerns of various alternative fuels will be stressed. Electrical/electronic diagnosis of the various systems will be covered in detail with specific case studies on live vehicles. Students are recommended to have a working knowledge of automotive electricity, drivability diagnosis, and automotive computer systems.</p>	<p>AUTOMOTIVE TECHNOLOGY 264 – HYBRID AND ELECTRIC VEHICLE OPERATION AND DIAGNOSIS Prerequisite: None Recommended Preparation "C" grade or higher or "Pass" in AUTO 162T Electronics Diagnosis and Repair Assessment Test Out or the equivalent. 1 hour lecture, 1 unit This lecture is a manufactures course required for certification of hybrid and electric vehicle (EV) systems for passenger cars and light trucks. The history of battery technologies will apply charging and repair techniques from first generation to present day EVs. EV technologies have evolved rapidly, requiring different methods of service for each new generation and system version. High voltage systems are dangerous. Proper safety procedures for hybrid and EV systems are required and emphasized. This course uses actual hybrids and EVs to perform electrical and electronic diagnosis of various systems. Students must have prerequisite knowledge and skill certifications of automotive electronics prior to enrolling in this course. This course is complemented by AUTO 264L Hybrid and Electric Vehicle Operation and Diagnosis Laboratory and AUTO 264T Hybrid and Electric Vehicle Operation and Diagnosis Assessment Test Out.</p>
<p>AUTOMOTIVE TECHNOLOGY 141 – EMISSION CONTROL LICENSE FUNDAMENTALS LEVEL I INSPECTOR TRAINING Prerequisite None Recommended Preparation: Recommended Preparation: AUTO 120, AUTO 122, AUTO 123, AUTO 124 2 hours lecture, 3 hours laboratory, 3 units Theory of operation and inspection of emission control devices with strong emphasis on federal and state laws and regulations required for licensing and testing of vehicles. This course demonstrates the most current testing devices used for inspection procedures, and is approved by the State of California Bureau of Automotive Repair (BAR). This course is designed to prepare a student to take the BAR Inspector Only (I.O.) licensing examination. Experienced candidates may skip Level I training if they possess: ASE A6, A8, and L1 certification; or an AA/AS degree or Certificate in Automotive Technology and have 1 year experience; or have 2 years of experience and have completed BAR specified diagnostic and repair training, AUTO 123 Engine Performance II Vehicle Emissions Systems.</p>	<p>AUTOMOTIVE TECHNOLOGY 284 – LEVEL I INSPECTOR TRAINING EMISSION CONTROL LICENSE Prerequisite: None Recommended Preparation: None 2 hours lecture, 2 units This lecture course contains the theory of operation and inspection of emission control devices with strong emphasis on federal and state laws and regulations required for licensing and testing of vehicles. This course describes the most current testing devices used for inspection procedures approved by the State of California Bureau of Automotive Repair (BAR). This course prepares students to take the BAR Inspector Only (I.O.) licensing examination. Experienced candidates may skip Level I training if they possess ASE A6, A8, and L1 certification; or have an AA/AS degree or certificate in Automotive Technology and have 1 year experience; or have 2 years of experience and have completed BAR specified diagnostic and repair training.</p>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
<p>AUTOMOTIVE TECHNOLOGY 142 – EMISSION LICENSE PROCEDURES LEVEL II INSPECTOR TRAINING Prerequisite: None Recommended Preparation: AUTO 120, 122, 123, 124, 127, 141. Completion of all California Bureau of Automotive Repair web based training modules. 1 hour lecture, 3 hours laboratory, 2 units The Smog Check Procedures training must be completed by all Inspector candidates. This training provides students the procedural knowledge skills and abilities to perform emission inspections. Students who complete this training will have met the State of California Bureau of Automotive Repair training requirements to qualify to take the Smog Inspector state licensing examination. To pass level II training students must pass a series of hands on assessments and pass a written examination. This course is designed for experienced students who possess ASE A6, A8, and L1 certification; or possess an AA/AS degree or Certificate(s) in automotive technology and have 1 year experience; or have 2 years of experience and have completed BAR specified diagnostic and repair training Engine Performance AT 123.</p>	<p>AUTOMOTIVE TECHNOLOGY 285 – LEVEL II INSPECTOR TRAINING EMISSION CONTROL LICENSE Prerequisite: None Recommended Preparation: None 1 hour lecture, 1 unit This lecture class of smog check procedures training must be completed by all Inspector candidates. This training provides students the procedural knowledge skills and abilities to describe and identify emission inspection procedures. This lecture course is part of a three course series: 285 lecture is accompanied by 285 Lab, and 285 Assessment Test Out, required prior to taking the Bureau of Automotive Repair (BAR) Smog Inspector state licensing examination. To pass level II training students must pass a series of hands-on assessments and a written examination. This course is designed for experienced students who possess ASE A6, A8, and L1 certification; or possess an AA/AS degree or Certificate(s) in automotive technology and have 1 year experience; or have 2 years of experience and have completed BAR specified diagnostic and repair training.</p>
<p>AUTOMOTIVE TECHNOLOGY 180 – AUTOMOTIVE SERVICE ADVISOR 1 hour lecture, 1 unit Prepares students for working as service advisors for large independent garages or dealerships. Covers service procedures, customer relations, repair orders and warranty policies.</p>	<p>AUTOMOTIVE TECHNOLOGY 210 – SERVICE MANAGEMENT 3 hour lecture, 3 units This lecture course prepares students for management operations of independent Automotive Repair Dealers (ARDs) and/or manufacturer franchise dealerships. This is an in-depth course about service procedures, customer relations, government regulation, licensing, compliance, repair orders, and warranty policies.</p>
<p>AUTOMOTIVE TECHNOLOGY 182 – AUTOMOTIVE WORK EXPERIENCE 75 hours paid or 60 hours unpaid work experience per unit, 1-3 units Students who are employed in the automotive trade full-time or part-time (paid or unpaid) and able to work the minimum required hours during the semester are eligible to enroll in this course. Assessment of student will be performed by instructor in discussion with appropriate supervisor at place of employment. Work experience compliments classroom curriculum. <i>Occupational cooperative work experience credit may accrue at the rate of one to eight units per semester for a total of sixteen units, and students must work 75 paid hours or 60 unpaid hours per unit earned.</i> This course may be elected up to five times for a maximum of 16 units.</p>	<p>AUTOMOTIVE TECHNOLOGY 212 – AUTOMOTIVE WORK EXPERIENCE 75 hours paid or 60 hours non-paid work experience per unit, 1-4 units Students who seek employment in automotive businesses, full-time or part-time, and are able to work specified hours during the semester, are eligible to enroll in this course. Assessment of students will be performed by the instructor using surveys of the mentor and manager, and student self-reflection based on the agreed upon objectives of the course. Work experience compliments classroom curriculum, and is considered essential for student competency. <i>Occupational cooperative work experience credit may accrue at the rate of one to four units per semester for a total of sixteen units, and students must work 75 paid hours or 60 non-paid hours per unit earned.</i> This course may be elected up to five times for a maximum of 16 units.</p>
<p>AUTOMOTIVE TECHNOLOGY 191A – ASSET–BRAKES Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent 1 hour lecture, 1 unit This Ford ASSET course includes a detailed study of modern automotive braking systems and service procedures. The course will cover drum and disc brake systems inspection, adjustment and repair procedures including methods of diagnosing and repairing various mechanical and hydraulic brake systems using Ford specified tools and procedures. This course is complemented by required work experience in the dealership where students will perform specific Ford competencies related to basic brake diagnosis and repair.</p>	<p>AUTOMOTIVE TECHNOLOGY 151 – BRAKE SYSTEM DIAGNOSIS AND REPAIR Prerequisite: None Recommended Preparation: None 2 hour lecture, 2 unit This course includes a detailed study of modern automotive braking systems and service procedures. The course will demonstrate drum and disc brake systems inspection, adjustment and repair procedures, including methods of diagnosing and repairing various mechanical and hydraulic brake systems using specified tools and procedures. This course is complemented by AUTO 151L Brake System Laboratory, AUTO 151T Brake System Assessment Test Out, and by Work Experience in the dealership where students will perform specific ASE competencies.</p>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
<p>AUTOMOTIVE TECHNOLOGY 191B – ASSET–BRAKES, ADVANCED BRAKES, SUSPENSION, NVH TEST OUT Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent. Ford ASSET course to include hands on summative and criterion tests for students to prove knowledge skills and abilities to perform diagnosis and repair of active brake systems, suspension, and noise vibration and harshness (NVH) on Ford vehicles in the department laboratory; or by using distance education technologies such as augmented reality or virtual reality. The tests will include brake control systems such as hydraulics, friction heating, electronic and mechanical parking brake control systems, inputs, actuations, or other auxiliary brake systems. As well as suspension system diagnosis, and NVH diagnosis prescribed by Ford Motor Company. This course allows a student residing distance from training centers to complete Ford certification requirements prior to performing warranty service at a dealership. This course is complemented by required work experience at a Ford dealership, and by completing lecture classes brakes, advanced brakes (vehicle dynamic braking and suspension), and NVH.</p>	<p>AUTOMOTIVE TECHNOLOGY 151T – BRAKE SYSTEM DIAGNOSIS AND REPAIR ASSESSMENT TEST OUT Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 162T Electronics Diagnosis and Repair Assessment Test Out or equivalent. This portfolio assessment course includes summative and criterion tests using vehicles with brake system concerns for diagnosis and repair. This course allows a student to demonstrate knowledge of proper diagnostic techniques for various brake component concerns in the department laboratory or by using distance education technologies, live demonstrations, and recordings of work. This course allows a student residing at a distance from training centers to complete ASE certification requirements. This course compliments AUTO 151L Brake Systems Laboratory, AUTO 151 Brake Systems Lecture, and Work Experience classes.</p>
<p>AUTOMOTIVE TECHNOLOGY 191C – ASSET–DYNAMIC VEHICLE BRAKES Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent 1.5 hours lecture, 1.5 units This Ford ASSET course includes a detailed study of modern automotive braking systems and service procedures. The course will include electronic braking systems inspection, adjustment and repair procedures including methods of diagnosing and repairing various electro mechanical and hydraulic brake systems using Ford specified tools and procedures. This course explains the high speed communication module relationship of braking, suspension, and powertrain, including active versus passive brake controls. This course is complemented by required work experience in the dealership where students will perform specific Ford competencies related to advanced brake diagnosis and repair.</p>	<p>AUTOMOTIVE TECHNOLOGY 153 – ADVANCED BRAKE SYSTEM DIAGNOSIS AND REPAIR Prerequisite: None Recommended Preparation: None 2 hours lecture, 2 units This lecture course includes a detailed study of automotive braking systems and service procedures. The course includes electronic braking systems inspection, adjustment and repair procedures, including methods of diagnosing and repairing various electro mechanical and hydraulic brake systems using specified tools and procedures. This course is complemented by AUTO 153L Advanced Brake System Lab, AUTO 153T Advanced Brake Assessment, and by Work Experience courses at the dealership where students will perform specific ASE competencies related to advanced brake diagnosis and repair.</p>
<p>AUTOMOTIVE TECHNOLOGY 191D – SUSPENSION Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent. This Ford ASSET course includes a detailed study of modern suspension systems and service procedures. This course includes inspection, adjustment, and repair procedures for suspension systems including methods of diagnosing and repairing various mechanical and hydraulic components using Ford specified tools and procedures. For example, alignments, adjustments, active suspension; and the relationship between suspension and vehicle dynamics. This course is complemented by required work experience in the dealership where students will perform specific Ford competencies related to suspension diagnosis and repair.</p>	<p>AUTOMOTIVE TECHNOLOGY 143 – STEERING AND SUSPENSION DIAGNOSIS AND REPAIR Prerequisite: None Recommended Preparation: None This course includes a detailed study of modern suspension systems and service procedures. This course includes inspection, adjustment, and repair procedures for suspension systems, including methods of diagnosing and repairing various mechanical and hydraulic components using specified tools and procedures. Alignments, adjustments, active suspension, and the relationship between suspension and vehicle dynamics, are demonstrated during lectures. This course is complemented by AUTO 143L Steering and Suspension Diagnosis and Repair Laboratory, AUTO 143T Steering and Suspension Diagnosis and Repair Assessment Test Out, and by Work Experience where students will perform specific ASE competencies related to suspension and steering diagnosis and repair.</p>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
<p>AUTOMOTIVE TECHNOLOGY 191E – NOISE VIBRATION AND HARSHNESS Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent. This Ford ASSET course includes a detailed study of modern noise, vibration, and harshness (NVH) systems and service procedures. This course includes inspection, adjustment, and repair procedures for NVH systems including methods of diagnosing and repairing various mechanical, electronic, and hydraulic components using Ford specified tools and procedures. For example, noise is a relationship to the frequency of sound that a human can hear, and the relationship between the rotational speeds of vehicle systems. This course is complemented by required work experience in the dealership where students will perform specific Ford competencies related to NVH diagnosis and repair.</p>	<p>AUTOMOTIVE TECHNOLOGY 144 – NOISE, VIBRATION, AND HARSHNESS Prerequisite: None Recommended Preparation: None This course includes a detailed study of modern Noise, Vibration, and Harshness (NVH) systems and service procedures. This course includes inspection, adjustment, and repair procedures for NVH systems, including methods of diagnosing and repairing various mechanical, electronic, and hydraulic components using specified tools and procedures. This course is complemented by 144L NVH Lab, 144T NVH Assessment Test Out, and Work Experience where students will perform specific ASE competencies related to NVH diagnosis and repair.</p>
<p>AUTOMOTIVE TECHNOLOGY 192A – ASSET–AUTOMATIC TRANSMISSION SERVICE Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent. This classroom course contains information about servicing automatic transmissions. The course topics include disassembly & inspection, subassembly, assembly, critical measurements, and unique service procedures. The course also includes the theory of and operation of automatic transaxles. Current computerized control system operation and diagnosis of the drive train will be emphasized. Successful completion includes Ford Motor Company certification and preparation for ASE Certification. This course must be complemented by work experience in the Ford dealership.</p>	<p>AUTOMOTIVE TECHNOLOGY 121 – AUTOMATIC TRANSMISSION THEORY AND OPERATION Prerequisite: None Recommended Preparation: None This lecture course contains information about the theory and operation of automatic transmissions. The course topics include mechanical, hydraulic, and electronic controls of torque distribution. Current computerized control system operation and diagnosis of the drivetrain system will be emphasized. This course is complemented by AUTO 121L Automatic Transmission Theory and Operation Laboratory and AUTO 121T Automatic Transmission Theory and Operation Assessment Test Out.</p>
<p>AUTOMOTIVE TECHNOLOGY 192B – ASSET–TRANSMISSION DIAGNOSE AND SERVICE TEST OUT Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent. Ford ASSET course to include hands on summative and criterion tests for students to prove knowledge skills and abilities to perform diagnosis and repair of active transmission systems including differential and four wheel drive (4WD) using Ford vehicles in the department laboratory; or by using distance education technologies such as augmented reality or virtual reality or mobile technologies. The tests will include drivetrain control systems such as hydraulics, friction clutches, electronic and mechanical transmission control systems, inputs, actuations, or other auxiliary systems prescribed by Ford Motor Company. This course allows a student residing distance from training centers to complete Ford certification requirements prior to performing warranty service at a dealership. This course is complemented by required work experience at a Ford dealership, and by completing lecture classes transmission service, transmission diagnosis, and differentials and 4WD.</p>	<p>AUTOMOTIVE TECHNOLOGY 121T – AUTOMATIC TRANSMISSION THEORY AND OPERATION ASSESSMENT TEST OUT Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 162T Electronics Diagnosis and Repair Assessment Test Out or equivalent. This assessment course includes summative and criterion tests for students to prove knowledge, skills and abilities to perform transmission system repairs, including critical measurements of automatic transmission components using vehicles in the department laboratory; or by using distance education technologies such as augmented reality, virtual reality or mobile technologies. The tests will include drivetrain control systems such as hydraulics, friction clutches, electronic and mechanical transmission control systems, inputs, actuations, or other auxiliary systems. This course allows a student residing at a distance from training centers to complete certification requirements. This course is complemented by AUTO 121 Automatic Transmission Theory and Operation lecture and AUTO 121L Automatic Transmission Theory and Operation laboratory courses.</p>
<p>AUTOMOTIVE TECHNOLOGY 192C – ASSET–AUTOMATIC TRANSMISSION DIAGNOSIS Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent This classroom course provides training about diagnosing automatic transmission concerns. Topics include normal operation, electrical fault diagnosis, diagnosing shift concerns, diagnosing engagement concerns, and the diagnostic process. This course is supplemented by work experience at a Ford dealership.</p>	<p>AUTOMOTIVE TECHNOLOGY 126 – AUTOMATIC TRANSMISSION DIAGNOSIS AND TESTING Prerequisite: None Recommended Preparation: None Catalog Description This lecture course provides training about diagnosing automatic transmission concerns. Topics include normal operation, electrical fault diagnosis, diagnosing shift concerns, diagnosing engagement concerns, and the diagnostic process. This course is preparation for ASE certification, and is complemented by AUTO 126L Automatic Transmission Diagnosis and Testing Laboratory, AUTO 126T Automatic Transmission Diagnosis and Testing Assessment Test Out, and/or by work experience.</p>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
<p>AUTOMOTIVE TECHNOLOGY 192D – ASSET–DIFFERENTIAL AND 4WD DIAGNOSIS AND SERVICE Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent. This Ford ASSET course includes a detailed study of modern automotive electronic or manually controlled differential and 4WD systems and service procedures. The course will describe systems inspection, adjustment and repair procedures including methods of diagnosing and repairing various mechanical and hydraulic drivetrain systems using Ford specified tools and procedures. This course is complemented by required work experience in the dealership where students will perform specific Ford competencies related to differential and 4WD diagnosis and repair.</p>	<p>AUTOMOTIVE TECHNOLOGY 132 – DIFFERENTIAL AND 4WD SYSTEMS DIAGNOSIS AND SERVICE Prerequisite: None Recommended Preparation: None This lecture course includes a detailed study of modern automotive electronic or manually controlled differential and 4WD systems and service procedures. The course will describe systems inspection, adjustment and repair procedures, including methods of diagnosing and repairing various mechanical and hydraulic drivetrain systems using specified tools and procedures. This course is accompanied by AUTO 132L Differential and 4WD Systems Diagnosis and Service Laboratory, AUTO 132T Assessment Test Out, and Work Experience courses where students will perform specific ASE competencies related to differential and 4WD diagnosis and repair.</p>
<p>AUTOMOTIVE TECHNOLOGY 193C – ASSET–DIESEL ENGINE PERFORMANCE AND DIAGNOSIS Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent. This classroom training course will cover diesel engine performance concerns and diagnosis, which will include the use of service publications, diagnostic tests and procedures as well as special tools and equipment. The information and exercises, presented in this course, are focused on the Power-stroke diesel engines and key subsystems found on Ford vehicles.</p>	<p>AUTOMOTIVE TECHNOLOGY 194 – DIESEL ENGINE PERFORMANCE AND DIAGNOSIS Prerequisite: None Recommended Preparation: None This lecture training course describes and demonstrates diesel engine performance concerns and diagnosis, which includes the use of service publications, diagnostic tests and procedures, as well as special tools and equipment. The information and exercises presented in this course are focused on the common rail diesel engines with electronic fuel injection. This is the lecture course for 194L Diesel Engine Performance and Diagnosis Laboratory and 194T Diesel Engine Performance and Diagnosis Assessment Test Out courses.</p>
<p>AUTOMOTIVE TECHNOLOGY 195A – ASSET–ENGINE PERFORMANCE THEORY AND OPERATION Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent 1.5 hours lecture, 1.5 units Ford ASSET course to include an in-depth study of engine drivability and electronic engine controls on modern automobiles and trucks. Includes the study of basic and electronic ignition systems, early and modern fuel systems, and the repair and diagnosis of these systems. Emphasis is on electronic engine control system theory of operation and repair to include discussion of sensors, processors and actuators, and system diagnosis and repair. On-board computer logic and strategies will also be presented. This classroom course will provide the knowledge and skills needed to describe fundamental engine performance theory and operation. The course includes scan tool operation, PID monitoring and PC/ED usage.</p>	<p>AUTOMOTIVE TECHNOLOGY 181 – ENGINE PERFORMANCE I IGNITION AND FUEL SYSTEMS Prerequisite: None Recommended Preparation: None 2 hours lecture, 2 units This lecture course includes an in-depth study of ignition and fuel system engine controls on modern automobiles and trucks, including the diagnosis and repair of these systems. On-board computer logic and strategies of ignition and fuel systems will provide the knowledge needed to describe fundamental engine performance theory and operation. This course is complemented by AUTO 181L Engine Performance I Ignition and Fuel Systems Laboratory, AUTO 181T Engine Performance I Ignition and Fuel Systems Assessment Test Out, and Work Experience courses.</p>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
<p>AUTOMOTIVE TECHNOLOGY 195B – ASSET–ENGINE PERFORMANCE DIAGNOSIS AND REPAIR TEST OUT Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent. Ford ASSET course to include hands on summative and criterion tests for students to prove knowledge skills and abilities to perform diagnosis and repair of engine performance systems including diesel engine performance of Ford vehicles in the department laboratory; or by using distance education technologies such as augmented reality or virtual reality or mobile technologies. The tests will include engine component systems such as parameter identification values (PID), inputs, actuations, or other auxiliary systems prescribed by Ford Motor Company. This course will test student knowledge of gasoline turbo direct injection (GTDI). This course allows a student residing distance from training centers to complete Ford certification requirements prior to performing warranty service at a dealership. This course is complemented by required work experience at a Ford dealership, and by completing lecture classes engine performance and diagnosis, engine performance diagnosing and testing, and GTDI diagnosis and testing.</p>	<p>AUTOMOTIVE TECHNOLOGY 181T – ENGINE PERFORMANCE I IGNITION AND FUEL SYSTEMS ASSESSMENT TEST OUT Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 162T Electronics Diagnosis and Repair Assessment Test Out. This assessment course includes summative and criterion tests for students to prove knowledge, skills, and abilities to perform diagnosis and repair of engine performance systems on vehicles in the department laboratory, or by using distance education technologies, such as augmented reality or virtual reality. The tests will include recorded and live student demonstrations used for observation and assessment. This course allows a student residing at a distance from training centers to complete certification requirements. This course is the assessment for AUTO 181 Engine Performance I Ignition and Fuel Systems lecture, AUTO 181L Engine Performance I Ignition and Fuel Systems Laboratory, and Work Experience courses.</p>
<p>AUTOMOTIVE TECHNOLOGY 195C – ASSET–ENGINE PERFORMANCE DIAGNOSIS AND TESTING Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent. 1.5 hours lecture, 1.5 units This classroom course will provide the knowledge and skills needed to understand engine performance diagnosis and testing. The course includes an introduction to the Symptom/System/Component/Cause (SSCC) process, pinpoint test diagnosis and specific scan tool operations.</p>	<p>AUTOMOTIVE TECHNOLOGY 183 – ENGINE PERFORMANCE II INTAKE EXHAUST AND EMISSION SYSTEMS Prerequisite: None Recommended Preparation: None 2 hours lecture, 2 units This lecture course provides the knowledge and skills needed to describe and identify engine performance diagnosis and testing methods of the intake, exhaust, and emission control systems. This course demonstrates diagnostic processes of normally aspirated, forced air systems, exhaust treatment, lambda sensor inputs, and various emission controls. This course is part of a three course series including AUTO 183L Engine Performance II Intake, Exhaust and Emission Systems Laboratory, AUTO 183T Engine Performance II Intake, Exhaust and Emission Systems Assessment Test Out, and Work Experience courses.</p>
<p>AUTOMOTIVE TECHNOLOGY 195D – GASOLINE TURBO DIRECT INJECTION Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent. 1.5 hours lecture, 1.5 units This classroom course teaches proper diagnosis and repair of the Gasoline Turbocharged Direct Injection (GTDI) engine. You will use the IDS and follow Pinpoint tests to diagnose engine-related DTC's. This course will describe turbo charging and manifold absolute pressure sensor values relating to turbo charging. The course will describe high pressure fuel system tests.</p>	<p>AUTOMOTIVE TECHNOLOGY 283 – ADVANCED ENGINE PERFORMANCE Prerequisite: “C” grade or higher or “Pass” or the equivalent in: AUTO 162T Electronics Diagnosis and Repair Assessment Test Out, and 181T Engine Performance I Ignition and Fuel Systems Assessment Test Out, and 183T Engine Performance II Intake Exhaust Emissions Systems Assessment Test Out. Recommended Preparation: None 1 hour lecture, 1 unit This lecture course describes and demonstrates proper diagnosis and repair of advanced engine performance systems using diagnostic methods, including programming. Use the scan tool, reference values, mode 6 data, and follow pinpoint tests to diagnose intermittent related DTC's and symptoms. This course is part of a three course series including 283L Advanced Engine Performance Laboratory, 283T Advanced Engine Performance Assessment Test Out, and Work Experience courses.</p>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
<p>AUTOMOTIVE TECHNOLOGY 196D – ASSET–CLIMATE CONTROL Prerequisite: Students must have a signed Ford dealership sponsorship agreement. Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent. Ford ASSET course to include climate control systems, theory, diagnosis and repair procedures utilizing state of the art equipment. This course applies basic heating and air conditioning test applications incorporating electronic controls units and computer networks. This course covers various vehicle computer functions such as: body electronics, climate control units, and electric vehicle and hybrid vehicle climate system operations. Students will use test equipment to measure sensor outputs used for computer component activation, and study vehicle electronic wiring diagrams in depth, gaining knowledge skills and abilities to perform complex tests. This course is preparation for Ford certification, and complemented by required work experience in the dealership.</p>	<p>AUTOMOTIVE TECHNOLOGY 171 – CLIMATE CONTROL SYSTEM DIAGNOSIS AND REPAIR Prerequisite: None Recommended Preparation: None This lecture course demonstrates and describes climate control systems, theory, diagnosis and repair procedures utilizing state of the art equipment. This course applies basic heating and air conditioning test applications incorporating electronic controls units and computer networks. This course covers various vehicle computer functions such as: body electronics, climate control units, and electric vehicle and hybrid vehicle climate system operations. This course is preparation for ASE certification, and complemented by AUTO 171L Climate Control Diagnosis and Repair Lab, AUTO 171T Climate Control Diagnosis and Repair Assessment Test Out, and by Work Experience at the dealership.</p>
<p>AUTOMOTIVE TECHNOLOGY 197 – ASSET–WORK EXPERIENCE Ford ASSET work experience. Students are responsible to attain sponsoring dealership employment before enrollment in the work experience course. This course is based on paid work experience at the sponsoring Ford dealership. Assessment of a student will be performed by the ASSET Instructor with dealership personnel including the lead technicians, shop foreman, service manager, and student self-evaluation reflection. Students are expected to work in the content area of diagnosis and repair concurrent with the content area of instruction in order to further develop skills attained in the classroom setting. Ford certifications will not be attained without documentation completed and signed by the student and evaluators in the work experience record book. <i>Occupational cooperative work experience credit may accrue at the rate of one to eight units per semester for a total of sixteen units, and students must work 75 paid hours per unit earned.</i></p>	<p>AUTOMOTIVE TECHNOLOGY 215 – FORD ASSET–WORK EXPERIENCE Ford ASSET work experience. Students are responsible for attaining sponsoring dealership employment before enrollment in the work experience course. This course is based on paid work experience at the sponsoring Ford dealership. Assessment of students will be performed by the ASSET Instructor with dealership personnel, including the lead technicians, shop foreman, service manager, and through student self-evaluation reflections. Students are expected to work in the content area of diagnosis and repair concurrent with the content area of instruction in order to further develop skills attained in the classroom setting. Ford certifications will not be attained without documentation completed and signed by the student and evaluators in the work experience record book. Each student is required to use a digital portfolio to document competencies and ASE tasks. <i>Occupational cooperative work experience credit may accrue at the rate of one to eight units per semester for a total of twelve to sixteen units, and students must work 75 paid hours per unit earned.</i></p>
<p>AUTOMOTIVE TECHNOLOGY 206 – ASEP–WORK EXPERIENCE Prerequisite: “C” grade or higher or “Pass” in AUTO 200 or equivalent General Motors ASEP work experience. Students will be placed with a sponsoring dealer at the start of the training program. This course is based on paid work experience at the sponsoring dealership. Assessment of students will be performed by the ASEP coordinator in discussion with appropriate dealership personnel. Students are expected to work in the area of emphasis that is concurrent with area of training most recently completed at the college in order to further develop skills attained in the classroom setting. <i>Occupational cooperative work experience credit may accrue at the rate of one to eight units per semester for a total of sixteen units, and students must work 75 paid hours per unit earned. Must be taken for a total of 15 units.</i></p>	<p>AUTOMOTIVE TECHNOLOGY 214 – GENERAL MOTORS ASEP WORK EXPERIENCE Prerequisite: None General Motors ASEP work experience. Students will be placed with a sponsoring dealer at the start of the training program. This course is based on paid work experience at the sponsoring dealership. Assessment of students will be performed by the ASEP coordinator in discussion with appropriate dealership personnel. Students are expected to work in the area of emphasis that is concurrent with area of training most recently completed at the college in order to further develop skills attained in the classroom setting. <i>Occupational cooperative work experience credit may accrue at the rate of one to eight units per semester for a total of sixteen units, and students must work 75 paid hours per unit earned. Must be taken for a total 12- 16 units.</i></p>
<p>COMMUNICATION 110 – INTRODUCTION TO MASS COMMUNICATION</p>	<p><i>Review and update of course outline</i></p>
<p>COMMUNICATION 120 – INTERPERSONAL COMMUNICATION</p>	<p><i>Review and update of course outline</i></p>
<p>COMMUNICATION 122 – PUBLIC SPEAKING</p>	<p><i>Review and update of course outline</i></p>
<p>COMMUNICATION 145 – ARGUMENTATION</p>	<p><i>Review and update of course outline</i></p>
<p>ELECTRONICS TECHNOLOGY 110 – INTRODUCTION TO BASIC ELECTRONICS Exploratory course of study in the laws of physics as they relate to electricity and electronics. Topics include the history of electrical science, atomic structure, basic electrical laws, DC and AC circuits, semiconductors, integrated circuits, amplifiers, wave forms, electrical test equipment, circuit construction, and electrical safety. Background in basic algebra and use of scientific calculators is highly desirable.</p>	<p>INTRODUCTION TO ELECTRICITY AND ELECTRONICS This course includes the laws of physics as they relate to electricity and electronics. Topics include the history of electrical science, atomic structure, basic electrical laws, DC and AC circuits, semiconductors, integrated circuits, amplifiers, waveforms, electrical test equipment, circuit construction, and electrical safety. Knowledge of basic algebra and how to use scientific calculators is highly desirable.</p>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
HISTORY 114 – COMPARATIVE HISTORY OF THE EARLY AMERICAS	<i>Review and update of course outline</i>
HISTORY 115 – COMPARTIVE HISTORY OF THE MODERN AMERICAS	<i>Review and update of course outline</i>
HISTORY 118 – U.S. HISTORY: CHICANO/CHICANA PERSPECTIVES I Historical survey of Mexican Americans in the United States in which attention is given to social, political and economic background, with an emphasis on the origins of basic American institutions and ideals. Particular emphasis on the development of Spanish-speaking peoples’ economic, social and political experience in the United States, especially in the Southwest from the pre-contact period to the Mexican American War.	Historical survey of Mexican Americans in the United States in which attention is given to social, political and economic background, with an emphasis on the origins of basic American institutions and ideals. Particular emphasis on the development of Spanish-speaking peoples’ economic, social, political, and racialized experience in the United States, especially in the Southwest from the pre-contact period to the Mexican American War. <i>Also listed as ETHN 118. Not open to students with credit in ETHN 118.</i>
HISTORY 119 – U.S. HISTORY: CHICANO/CHICANA PERSPECTIVES II Historical survey of Mexican Americans in the United States in which attention is given to the social, political, and economic background, including explorations of the U.S. and California constitutions and interactions between federal, state, and local governments. Particular emphasis on the economic, social and political experiences of Mexican Americans and Latinos in the United States, especially in the Southwest from the Mexican-American War to the present.	Historical survey of Mexican Americans in the United States in which attention is given to the social, political, and economic background, including explorations of the U.S. and California constitutions and interactions between federal, state, and local governments. Particular emphasis on the economic, social and political experiences of Mexican Americans and Latinas/os/x in the United States, including migration, colonization, racialization, discrimination, assimilation, social stratification, liberation movements, and the intersection of racial, ethnic, gender, sexual identities, especially in the Southwest from the Mexican-American War to the present. <i>Also listed as ETHN 119. Not open to students with credit in ETHN 119.</i>
HISTORY 130 – U.S. HISTORY AND CULTURES: NATIVE AMERICAN PERSPECTIVES I Historical survey of the indigenous people throughout the North American continent from the earliest recorded knowledge to 1850. Attention is given to Native American perspectives of native and non-native cultures. The influence of Native Americans on the Federal Constitution and the political philosophies of early Americans will be studied. Native American political organization and its parallels and differences in early American political organizations and philosophies are studied. Particular attention is given to legislation and its impact on Native American culture and society.	This course covers the social, political, cultural, economic, and intellectual history of indigenous groups in North America from pre-history to 1850. Areas of focus include: Native American perspectives of native and non-native cultures, the influence of Native Americans on the Federal Constitution and the U.S. political system, the impact of legislation on Native Americans, and Native American resistance and adaptability in response to land encroachment, racial and ethnic discrimination, and assimilation strategies. <i>Also listed as ETHN 130. Not open to students with credit in ETHN 130.</i>
HISTORY 131 – U.S. HISTORY AND CULTURES: NATIVE AMERICAN PERSPECTIVES II Historical survey of the indigenous peoples of the North American continent from the period of 1850 to the present. Attention will be given to contemporary, historical, political and socio-economic issues affecting Native Americans, nationwide, statewide and locally. Native American perspectives of native and non-native cultures will be included. The Federal and State Constitutions are studied with special emphasis given to the effects on and influence of the Native American culture and society. Particular attention is given to political philosophies and the impact of legislation on Native American culture and society.	This course covers the social, political, cultural, economic, and intellectual history of indigenous groups in North America from 1850 to the present. Areas of focus include: Native American perspectives of native and non-native cultures, the portrayal and influence of Native Americans in popular culture, the influence of Native Americans on the California State Constitution and government, the impact of State and Federal legislation on Native Americans, and Native American agency and resistance movements in the struggle for civil and political rights and indigenous sovereignty. <i>Also listed as ETHN 131. Not open to students with credit in ETHN 131.</i>
HISTORY 132 – KUMEYAAY HISTORY I: PRECONTACT – 1900 Historical survey of the Kumeyaay Nation from prehistoric times to 1900. Attention is given to Kumeyaay perspectives of Kumeyaay and non-Kumeyaay cultures. Kumeyaay oral history will be incorporated with discussions of the Creation Story, bird songs, ceremonies, religion and peon games. Overview of tribal sovereignty and Kumeyaay independence, laws pertaining to Native Americans in the United States, and early assimilation policies of the United States and Mexico.	KUMEYAAY HISTORY I: PRECONTACT - 1845 Historical survey of the Kumeyaay Nation from prehistoric times to 1845. Focus will be on Kumeyaay perspectives of Kumeyaay and non-Kumeyaay cultures; Kumeyaay oral history as it relates to the Creation Story, bird songs, ceremonies, religion and peon games; tribal sovereignty; sociopolitical clan structures; and the evolution of Kumeyaay leadership. Special emphasis will be given to the health and morbidity of indigenous populations and their labor in relation to the Mission San Diego de Alcalá and historic ranchos in San Diego County. <i>Also listed as ETHN 132. Not open to students with credit in ETHN 132.</i>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
<p>HISTORY 133 – KUMEYAAY HISTORY II: 1900 - PRESENT Historical survey of the Kumeyaay Nation from 1900 to the present. Attention is given to Kumeyaay perspectives of Kumeyaay and non-Kumeyaay cultures. Specific segments include: The Mission Indian Federation, The Indian Relocation Act, The Termination Era and PL 280, Indian Activism, Indian Self-Determination, and the Indian Gaming Regulatory Act and contemporary Tribal Governments. The modern history of the Kumeyaay Nation including participation in the Mission Indian Federation, impact of Public Law 280, and the growth leading to the creation of current Indian Gaming in San Diego County will be examined. Overview of contemporary tribal sovereignty and Kumeyaay independence, laws pertaining to Native Americans in the United States, and the termination policies of the United States.</p>	<p>KUMEYAAY HISTORY II: 1846 - PRESENT Historical survey of the Kumeyaay Nation from 1846 to the present. Focus will be on Kumeyaay perspectives of Kumeyaay and non-Kumeyaay cultures, creation of Kumeyaay reservations, Mission Indian Federation, Public Law 83-280, Indian self-determination, Indian Gaming Regulatory Act, contemporary tribal governments, landmark Indian Gaming court cases, and an overview of laws pertaining to Native Americans in the United States. Special emphasis will be given to contemporary issues affecting the Kumeyaay Nation and Kumeyaay tribal governments, including socioeconomic deficits, tribal sovereignty, blood quantum, tribal enrollment, demographic challenges, language loss and acquisition, historical trauma, and the growing equity gaps among tribes without casinos. <i>Also listed as ETHN 133. Not open to students with credit in ETHN 133.</i></p>
<p>HISTORY 180 – U.S. HISTORY: BLACK PERSPECTIVES I United States history with an emphasis on social, economic, political and cultural experiences of Black people. Traces the development of African-American history from African origins through the period of Reconstruction.</p>	<p>United States history with an emphasis on social, economic, political and cultural experiences of Black people. Traces the development of African American history from African origins through the period of Reconstruction, with a focus on agency, resistance, self-determination, and liberation. <i>Also listed as ETHN 180. Not open to students with credit in ETHN 180.</i></p>
<p>HISTORY 181 – U.S. HISTORY: BLACK PERSPECTIVES II Examination of significant aspects of United States history from the aftermath of the Civil War to the present, including explorations of the U.S. and California constitutions and interactions between federal, state, and local governments. Emphasis is on the socio-economic, political and cultural experience of African Americans in the United States from Reconstruction to the present.</p>	<p>HISTORY 181 – U.S. HISTORY: BLACK PERSPECTIVES II Examination of significant aspects of United States history from the aftermath of the Civil War to the present, including explorations of the U.S. and California constitutions and interactions between federal, state, and local governments. Emphasis is on the socio-economic, political, and cultural experiences of African Americans in the United States from Reconstruction to the present, with a focus on agency, resistance, self-determination, and liberation. <i>Also listed as ETHN 181. Not open to students with credit in ETHN 181.</i></p>
<p>MATHEMATICS 280 – ANALYTIC GEOMETRY AND CALCULUS II</p>	<p><i>Review and update of course outline</i></p>
<p>REAL ESTATE 193 – REAL ESTATE LEGAL ASPECTS</p>	<p><i>Review and update of course outline</i></p>

DEACTIVATIONS

Course	Reason For Deletion per Department Faculty and/or Advisory Committee Recommendations
MATH 010 – JUST-IN-TIME-SUPPORT FOR INTERMEDIATE ALGEBRA	Recommendation of the department faculty. The department found through data and placement procedures, the corequisite course is not likely needed.
MATH 096 – PREPARATION FOR ELEMENTARY STATISTICS AND QUANTITATIVE REASONING	Recommendation of the department faculty. The department found through data and placement procedures, the corequisite course is not likely needed.

DISTANCE EDUCATION

Course	Title
AUTO 100L (formerly AUTO 100)	Introduction to Automotive Technology Laboratory
AUTO 121 (formerly AUTO 192A)	ASSET Automatic Transmission Service
AUTO 121L	Automatic Transmission Theory and Operation Laboratory
AUTO 121T (formerly AUTO 192B)	ASSET Automatic Transmission Diagnose and Service Test Out
AUTO 126 (formerly AUTO 192C)	ASSET Automatic Transmission Diagnosis
AUTO 126L	Automatic Transmission Diagnosis and Testing Laboratory
AUTO 126T	Automatic Transmission Diagnosis and Testing Assessment Test Out
AUTO 132L	Differential and 4WD Systems Laboratory
AUTO 132T	Differentials and 4WD Systems Assessment Test Out
AUTO 143L	Steering and Suspension Diagnosis and Repair Laboratory
AUTO 143T	Steering and Suspension Diagnosis and Repair Assessment Test Out
AUTO 144L	Noise Vibration and Harshness Assessment Laboratory
AUTO 144T	Noise Vibration and Harshness Assessment Test Out
AUTO 151 (formerly AUTO 191A)	Brake System Diagnosis and Repair
AUTO 151L	Brake System Diagnosis and Repair Laboratory
AUTO 151T (formerly AUTO 191B)	Brake System Diagnosis and Repair Test Out
AUTO 153L	Advanced Brake System Diagnosis and Repair Laboratory
AUTO 153T	Advanced Brake System Diagnosis and Repair Assessment Test Out
AUTO 171 (formerly AUTO 196D)	Climate Control System Diagnosis
AUTO 171L	Climate Control System Diagnosis and Repair Laboratory
AUTO 171T	Climate Control System Diagnosis and Repair Assessment Test Out
AUTO 181L	Engine Performance I Ignition and Fuel Systems Laboratory
AUTO 183 (formerly AUTO 195C)	Engine Performance Intake Exhaust and Emission Systems
AUTO 183L	Engine Performance II Intake Exhaust Emission Systems Laboratory
AUTO 183T	Engine Performance II Intake Exhaust Emission Systems Assessment Test Out
AUTO 194 (formerly AUTO 193C)	Diesel Engine Performance and Diagnosis

AUTO 194L	Diesel Engine Performance and Diagnosis Laboratory
AUTO 194T	Diesel Engine Performance and Diagnosis Assessment Test Out
AUTO 210 (formerly AUTO 180)	Service Management
AUTO 211	Customer Service Management
AUTO 263	Advanced Electronics
AUTO 263L	Advanced Electronics Laboratory
AUTO 263T	Advanced Electronics Assessment Test Out
AUTO 264 (formerly AUTO 129)	Hybrid and Electric Vehicle Operation and Diagnosis
AUTO 264L	Hybrid and Electric Vehicle Operation and Diagnosis Laboratory
AUTO 264T	Hybrid and Electric Vehicle Operation and Diagnosis Assessment Test Out
AUTO 283L	Advanced Engine Performance Laboratory
AUTO 283T	Advanced Engine Performance Assessment Test Out
AUTO 284 (formerly AUTO 141)	Level I Inspector Training Emission Control License
AUTO 284L	Level I Inspector Training Emission Control License Laboratory
AUTO 284T	Level I Inspector Training Emission Control License Assessment Test Out
AUTO 285 (formerly AUTO 142)	Level II Inspector Training Emission Control License
AUTO 285L	Level II Inspector Training Emission Control License Laboratory
AUTO 285T	Level II Inspector Training Emission Control License Assessment Test Out
ET 110	Introduction to Electricity and Electronics
ETHN 118	U.S. History: Chicano/Chicana Perspectives I
ETHN 119	U.S. History: Chicano/Chicana Perspectives II
ETHN 130	U.S. History and Cultures: Native American Perspectives I
ETHN 131	U.S. History and Cultures: Native American Perspectives II
ETHN 132	Kumeyaay History I: Precontact - 1845
ETHN 133	Kumeyaay History II: 1846 - Present
ETHN 180	U.S. History: Black Perspectives I
ETHN 181	U.S. History: Black Perspectives II
MATH 280	Analytic Geometry and Calculus II

DEGREE AND CERTIFICATE ADDITIONS

AUTOMOTIVE TECHNOLOGY – AUTOMOTIVE SERVICE COUNCILS OF CALIFORNIA ASCCA Certificate of Achievement

The Automotive Service Councils of California Association (ASCCA) sponsored degree program offers a unique, on-the-job training opportunity for students accepted by a sponsoring Automotive Repair Dealer (ARD) or affiliate. Students will be required to further their studies in an ASCCA sponsoring repair facility as a paid apprentice technician. Successful students will gain over 1,000 hours of documented and evaluated paid work experience relating to the learning objectives of the program, Automotive Service Excellence Certifications, and California Smog Inspector and Repair Technician licensing training. This is an excellent major for students wanting to own or operate an independent business.

Program Learning Outcomes

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

- Accurately describe and demonstrate knowledge of various automotive system operations and interrelationships at an ASCCA Automotive Repair Dealership or affiliate.
- Diagnose and repair automotive system problems by performing necessary actions at an ASCCA ARD or affiliate.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels

Certificate of Achievement

<i>Course</i>	<i>Title</i>	<i>Units</i>
Required Core:		
AUTO 099	Introduction to Automotive Technology	3
AUTO 100L	Introduction to Automotive Technology Laboratory	1
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 151	Brake System Diagnosis and Repair	2
AUTO 151L	Brake System Diagnosis and Repair Laboratory	1
AUTO 151T	Brake System Diagnosis and Repair Assessment Out	0.5
AUTO 143	Steering and Suspension Diagnosis and Repair	2
AUTO 143L	Steering and Suspension Diagnosis and Repair Laboratory	1
AUTO 143T	Steering and Suspension Diagnosis and Repair Assessment Test Out	0.5
AUTO 284	Level I Smog Inspector Training	2
AUTO 284L	Level I Smog Inspector Training Laboratory	1
AUTO 284T	Level I Smog Inspector Training Assessment Test Out	0.5
AUTO 285	Level II Smog Inspector Training	1
AUTO 285L	Level II Smog Inspector Training Laboratory	1
AUTO 285T	Level II Smog Inspector Training Assessment Test Out	0.5
AUTO 264	Hybrid and Electric Vehicle Operation and Diagnosis	1
AUTO 264L	Hybrid and Electric Vehicle Operation and Diagnosis Laboratory	1
AUTO 264T	Hybrid and Electric Vehicle Operation and Diagnosis Assessment Test Out	0.5
AUTO 183	Engine Performance II Intake Exhaust and Emission Systems	2
AUTO 183L	Engine Performance II Intake Exhaust and Emission Systems Laboratory	1
AUTO 183T	Engine Performance II Intake Exhaust and Emission Systems Assessment Test Out	0.5
*AUTO 213	ASCCA Work Experience	<u>12</u>
	Total Required	42

*Must be taken for a total of 12 units.

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Automotive Technology – Automotive Service Councils of California ASCCA. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

AUTOMOTIVE TECHNOLOGY – CHASSIS SPECIALIST
Associate in Science Degree

Many businesses need technicians with very specific skills to diagnose and repair complex problems of brakes, suspension, and dynamic vehicle driving systems. This specialized degree includes antilock braking, electronic suspension, and alignment training. Successful students will qualify to take the California Bureau of Automotive Licensing exams for Brake and Lamp licensing. Work experience is a requirement for this major, which ensures student competency and success. All students are required to complete a digital portfolio resume used for assessment and practicum. Students completing all courses and general education courses will receive an Associate of Science during Commencement. Students completing all automotive course requirements will receive a Certificate of Achievement during Commencement.

Program Learning Outcomes

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

- Accurately describe and demonstrate knowledge of various automotive brake, steering, and suspension systems.
- Diagnose and repair automotive chassis systems by performing necessary actions.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels.

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 151	Brake System Diagnosis and Repair	2
AUTO 151L	Brake System Diagnosis and Repair Laboratory	1
AUTO 151T	Brake System Diagnosis and Repair Assessment Test Out	0.5
AUTO 153	Advanced Brake System Diagnosis and Repair	2
AUTO 153L	Advanced Brake System Diagnosis and Repair Laboratory	1
AUTO 153T	Advanced Brake System Diagnosis and Repair Assessment Test Out	0.5
AUTO 143	Steering and Suspension Diagnosis and Repair	2
AUTO 143L	Steering and Suspension Diagnosis and Repair Laboratory	1
AUTO 143T	Steering and Suspension Diagnosis and Repair Assessment Test Out	0.5
AUTO 144	Noise, Vibration, and Harshness Diagnosis	0.5
AUTO 144L	Noise, Vibration, and Harshness Diagnosis Laboratory	1
AUTO 144T	Noise, Vibration, and Harshness Diagnosis Assessment Test Out	0.5
AUTO 131	Manual Transmission and Transaxle Repair	1
AUTO 131L	Manual Transmission and Transaxle Repair Laboratory	1
AUTO 131T	Manual Transmission and Transaxle Repair Assessment Test Out	0.5
AUTO 132	Differential and 4WD System Diagnosis and Repair	1
AUTO 132L	Differential and 4WD System Diagnosis and Repair Laboratory	1
AUTO 132T	Differential and 4WD System Diagnosis and Repair Assessment Test Out	0.5
*AUTO 212	Automotive Technology Work Experience	<u>12</u>
	Total Required	36.5
	Plus General Education Requirements	

*Must be taken for a total of 12 units.

Certificate of Achievement (*Note: the Certificate of Achievement is not an addition*)

Students who complete the requirements above qualify for a Certificate in Automotive Technology–Chassis Specialist. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

AUTOMOTIVE TECHNOLOGY – DRIVETRAIN SPECIALIST
Associate in Science Degree

Many businesses need technicians with very specific skills to diagnose and repair complex problems of transmissions, transaxles, and differential vehicle power systems. This specialized degree includes electronic controlled valve bodies, electronic differentials, four wheel drive, and all-wheel drive systems. Successful students will obtain a highly desired specialty set of skills. Work experience is a requirement for this major, which ensures student competency and success. All students are required to complete a digital portfolio resume used for assessment and practicum. Students completing all courses and general education courses will receive an Associate of Science during Commencement. Students completing all automotive course requirements will receive a Certificate of Completion during Commencement.

Program Learning Outcomes

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

- Accurately describe and demonstrate knowledge of various automotive automatic, manual, electric and electronic drivetrain systems.
- Diagnose and repair automotive power transmission systems by performing necessary actions.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels.

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 131	Manual Transmission and Transaxle Repair	1
AUTO 131L	Manual Transmission and Transaxle Repair Laboratory	1
AUTO 131T	Manual Transmission and Transaxle Repair Assessment Test Out	0.5
AUTO 132	Differential and 4WD System Diagnosis and Repair	1
AUTO 132L	Differential and 4WD System Diagnosis and Repair Laboratory	1
AUTO 132T	Differential and 4WD System Diagnosis and Repair Assessment Test Out	0.5
AUTO 121	Automatic Transmission Theory and Operation	2
AUTO 121L	Automatic Transmission Theory and Operation Laboratory	1
AUTO 121T	Automatic Transmission Theory and Operation Assessment Test Out	0.5
AUTO 126	Automatic Transmission Diagnosis and Testing	2
AUTO 126L	Automatic Transmission Diagnosis and Testing Laboratory	1
AUTO 126T	Automatic Transmission Diagnosis and Testing Assessment Test Out	0.5
AUTO 263	Advanced Electronics	1
AUTO 263L	Advanced Electronics Laboratory	1
AUTO 263T	Advanced Electronics Assessment Test Out	0.5
AUTO 264	Hybrid and Electric Vehicle Operation and Diagnosis	1
AUTO 264L	Hybrid and Electric Vehicle Operation and Diagnosis Laboratory	1
AUTO 264T	Hybrid and Electric Vehicle Operation and Diagnosis Assessment Test Out	0.5
*AUTO 212	Automotive Technology Work Experience	<u>12</u>
	Total Required	36
	Plus General Education Requirements	

*Must be taken for a total of 12 units.

Certificate of Achievement (*Note: the Certificate of Achievement is not an addition*)

Students who complete the requirements above qualify for a Certificate in Automotive Technology–Drivetrain Specialist. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

AUTOMOTIVE TECHNOLOGY – ELECTRONICS AND ELECTRIC VEHICLE SPECIALIST

Associate in Science Degree

Many businesses need technicians with very specific skills to diagnose and repair complex problems in the Electric Vehicle and Hybrid Vehicle specialty. The high voltage battery and vehicle power systems require extremely fast computer multiplexing. This specialized degree includes electronic controlled autonomous drive systems, electronic motor drive, four wheel motor drive, and hybrid drive systems. Successful students will obtain a highly desired specialty set of skills. Work experience is a requirement for this major, which ensures student competency and success. All students are required to complete a digital portfolio resume used for assessment and practicum. Students completing all courses and general education courses will receive an Associate of Science during Commencement. Students completing all automotive course requirements will receive a Certificate of Completion during Commencement.

Program Learning Outcomes

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

- Accurately describe and demonstrate knowledge of various electrical, electronic, hybrid, and electric vehicle systems.
- Diagnose and repair advanced electronic automotive systems by performing necessary actions.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 143	Steering and Suspension Diagnosis and Repair	2
AUTO 143L	Steering and Suspension Diagnosis and Repair Laboratory	1
AUTO 143T	Steering and Suspension Diagnosis and Repair Assessment Test Out	0.5
AUTO 153	Advanced Brake System Diagnosis and Repair	2
AUTO 153L	Advanced Brake System Diagnosis and Repair Laboratory	1
AUTO 153T	Advanced Brake System Diagnosis and Repair Test Assessment Out	0.5
AUTO 121	Automatic Transmission Theory and Operation	2
AUTO 121L	Automatic Transmission Theory and Operation Laboratory	1
AUTO 121T	Automatic Transmission Theory and Operation Assessment Test Out	0.5
AUTO 132	Differential and 4WD System Diagnosis and Repair	1
AUTO 132L	Differential and 4WD System Diagnosis and Repair Laboratory	1
AUTO 132T	Differential and 4WD System Diagnosis and Repair Assessment Test Out	0.5
AUTO 171	Climate Control Systems Diagnosis and Repair	1
AUTO 171L	Climate Control Systems Diagnosis and Repair Laboratory	1
AUTO 171T	Climate Control Systems Diagnosis and Repair Assessment Test Out	0.5
AUTO 181	Engine Performance I Ignition and Fuel Systems	2
AUTO 181L	Engine Performance I Ignition and Fuel Systems Laboratory	1
AUTO 181T	Engine Performance I Ignition and Fuel Systems Assessment Test Out	0.5
AUTO 183	Engine Performance II Intake Exhaust and Emission Systems	2
AUTO 183L	Engine Performance II Intake Exhaust and Emission Systems Laboratory	1
AUTO 183T	Engine Performance II Intake Exhaust and Emission Systems Assessment Test Out	0.5
AUTO 263	Advanced Electronics	1
AUTO 263L	Advanced Electronics Laboratory	1
AUTO 263T	Advanced Electronics Assessment Test Out	0.5
AUTO 264	Hybrid and Electric Vehicle Operation and Diagnosis	1
AUTO 264L	Hybrid and Electric Vehicle Operation and Diagnosis Laboratory	1
AUTO 264T	Hybrid and Electric Vehicle Operation and Diagnosis Assessment Test Out	0.5
AUTO 283	Advanced Engine Performance	1
AUTO 283L	Advanced Engine Performance Laboratory	1
AUTO 283T	Advanced Engine Performance Assessment Test Out	0.5
*AUTO 212	Automotive Technology Work Experience	<u>12</u>
	Total Required	49
	Plus General Education Requirements	

*Must be taken for a total of 12 units.

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Automotive Technology – Electronics and Electric Vehicle Specialist. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

AUTOMOTIVE TECHNOLOGY – ENGINE PERFORMANCE SPECIALIST

Associate in Science Degree

Many businesses need technicians with very specific skills to repair emission system failures or complex problems relating to the fuel, ignition, and/or engine systems. This specialized degree includes hybrid and electric vehicle, and gasoline and diesel fuel systems training. Successful students will qualify to take the California Bureau of Automotive Licensing exams for Smog Inspector and Repair licensing. Work experience is a requirement for this major, which ensures student competency and success. All students are required to complete a digital portfolio resume used for assessment and practicum. Students completing all courses and general education courses will receive an Associates of Science during Commencement. Students completing all automotive course requirements will receive a Certificate of Achievement during Commencement.

Program Learning Outcomes

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

- Accurately describe and demonstrate knowledge of various automotive emission control systems.
- Diagnose and repair automotive emission control systems by performing necessary actions.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels.

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 181	Engine Performance I Ignition and Fuel Systems	2
AUTO 181L	Engine Performance I Ignition and Fuel Systems Laboratory	1
AUTO 181T	Engine Performance I Ignition and Fuel Systems Assessment Test Out	0.5
AUTO 183	Engine Performance II Intake Exhaust and Emission Systems	2
AUTO 183L	Engine Performance II Intake Exhaust and Emission Systems Laboratory	1
AUTO 183T	Engine Performance II Intake Exhaust and Emission Systems Assessment Test Out	0.5
AUTO 283	Advanced Engine Performance	1
AUTO 283L	Advanced Engine Performance Laboratory	1
AUTO 283T	Advanced Engine Performance Assessment Test Out	0.5
AUTO 284	Level I Smog Inspector Training	2
AUTO 284L	Level I Smog Inspector Training Laboratory	1
AUTO 284T	Level I Smog Inspector Training Assessment Test Out	0.5
AUTO 285	Level II Smog Inspector Training	1
AUTO 285L	Level II Smog Inspector Training Laboratory	1
AUTO 285T	Level II Smog Inspector Training Assessment Test Out	0.5
AUTO 111	Engine Diagnosis and Repair	2
AUTO 111L	Engine Diagnosis and Repair Laboratory	1
AUTO 111T	Engine Diagnosis and Repair Assessment Test Out	0.5
AUTO 194	Diesel Engine Performance and Diagnosis	2
AUTO 194L	Diesel Engine Performance and Diagnosis Laboratory	1
AUTO 194T	Diesel Engine Performance and Diagnosis Assessment Test Out	0.5
AUTO 263	Advanced Electronics	1
AUTO 263L	Advanced Electronics Laboratory	1
AUTO 263T	Advanced Electronics Assessment Test Out	0.5
AUTO 264	Hybrid and Electric Vehicle Operation and Diagnosis	1
AUTO 264L	Hybrid and Electric Vehicle Operation and Diagnosis Laboratory	1
AUTO 264T	Hybrid and Electric Vehicle Operation and Diagnosis Assessment Test Out	0.5
*AUTO 212	Automotive Technology Work Experience	<u>12</u>
	Total Required	46.5
	Plus General Education Requirements	

*Must be taken for a total of 12 units.

Certificate of Achievement (*Note: the Certificate of Achievement is not an addition*)

Students who complete the requirements above qualify for a Certificate in Automotive Technology – Engine Performance Specialist. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

AUTOMOTIVE TECHNOLOGY – ENGINE REPAIR SPECIALIST
Associate in Science Degree

Many businesses need technicians with very specific skills to diagnose and repair complex problems in the diesel and gasoline engine specialty. Engines have very complex electro mechanical controls, and use hydraulic oil systems. This specialized degree includes variable cam timing, in-vehicle engine repair, diagnosis strategies, and related systems. Successful students will obtain a highly desired specialty set of skills. Work experience is a requirement for this major, which ensures student competency and success. All students are required to complete a digital portfolio resume used for assessment and practicum. Students completing all courses and general education courses will receive an Associate of Science during Commencement. Students completing all automotive course requirements will receive a Certificate of Completion during Commencement.

Program Learning Outcomes

Upon completion of this program, students will be able to:

- Accurately describe and demonstrate knowledge of various mechanical, electronic, and hydraulic, vehicle engine systems.
- Diagnose and repair advanced diesel and gasoline automotive engine systems by performing necessary actions.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels.

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 144	Noise Vibration and Harshness Diagnosis	0.5
AUTO 144L	Noise Vibration and Harshness Diagnosis Laboratory	1
AUTO 144T	Noise Vibration and Harshness Diagnosis Assessment Test Out	0.5
AUTO 171	Climate Control Systems Diagnosis and Repair	1
AUTO 171L	Climate Control Systems Diagnosis and Repair Laboratory	1
AUTO 171T	Climate Control Systems Diagnosis and Repair Assessment Test Out	0.5
AUTO 181	Engine Performance I Ignition and Fuel Systems	2
AUTO 181L	Engine Performance I Ignition and Fuel Systems Laboratory	1
AUTO 181T	Engine Performance I Ignition and Fuel Systems Assessment Test Out	0.5
AUTO 183	Engine Performance II Intake Exhaust and Emission Systems	2
AUTO 183L	Engine Performance II Intake Exhaust and Emission Systems Laboratory	1
AUTO 183T	Engine Performance II Intake Exhaust and Emission Systems Assessment Test Out	0.5
AUTO 111	Engine Diagnosis and Repair	2
AUTO 111L	Engine Diagnosis and Repair Laboratory	1
AUTO 111T	Engine Diagnosis and Repair Assessment Test Out	0.5
AUTO 194	Diesel Engine Performance and Diagnosis	2
AUTO 194L	Diesel Engine Performance and Diagnosis Laboratory	1
AUTO 194T	Diesel Engine Performance and Diagnosis Assessment Test Out	0.5
*AUTO 212	Automotive Technology Work Experience	<u>12</u>
	Total Required	37.5
	Plus General Education Requirements	

*Must be taken for a total of 12 units.

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Automotive Technology – Engine Repair Specialist. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**AUTOMOTIVE TECHNOLOGY – GENERAL MOTORS ASEP
Certificate of Achievement**

The General Motors sponsored Automotive Service Education Program (ASEP) degree program offers a unique job training opportunity to those students who are accepted. Training includes all systems of GM automobiles. In addition, students will be required to further their studies in a sponsoring dealership as a paid GM student technician. Students who have previous college credit or an associate degree or higher may be exempt from all or part of the general education requirements; please see a counselor or coordinator.

Program Learning Outcomes

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

- Accurately describe and demonstrate knowledge of General Motors automotive system operations and interrelationships.
- Diagnose and repair General Motors automotive system problems by performing necessary actions.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels.

Certificate of Achievement

<i>Course</i>	<i>Title</i>	<i>Units</i>
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 144	Noise Vibration and Harshness Diagnosis	0.5
AUTO 144L	Noise Vibration and Harshness Diagnosis Laboratory	1
AUTO 144T	Noise Vibration and Harshness Diagnosis Assessment Test Out	0.5
AUTO 151	Brake System Diagnosis and Repair	2
AUTO 151L	Brake System Diagnosis and Repair Laboratory	1
AUTO 151T	Brake System Diagnosis and Repair Assessment Test Out	0.5
AUTO 153	Advanced Brake System Diagnosis and Repair	2
AUTO 153L	Advanced Brake System Diagnosis and Repair Laboratory	1
AUTO 153T	Advanced Brake System Diagnosis and Repair Assessment Test Out	0.5
AUTO 143	Steering and Suspension Diagnosis and Repair	2
AUTO 143L	Steering and Suspension Diagnosis and Repair Laboratory	1
AUTO 143T	Steering and Suspension Diagnosis and Repair Assessment Test Out	0.5
AUTO 132	Differential and 4WD System Diagnosis and Repair	1
AUTO 132L	Differential and 4WD System Diagnosis and Repair Laboratory	1
AUTO 132T	Differential and 4WD System Diagnosis and Repair Assessment Test Out	0.5
AUTO 171	Climate Control Systems Diagnosis and Repair	1
AUTO 171L	Climate Control Systems Diagnosis and Repair Laboratory	1
AUTO 171T	Climate Control Systems Diagnosis and Repair Assessment Test Out	0.5
AUTO 121	Automatic Transmission Theory and Operation	2
AUTO 121L	Automatic Transmission Theory and Operation Laboratory	1
AUTO 121T	Automatic Transmission Theory and Operation Assessment Test Out	0.5
AUTO 126	Automatic Transmission Diagnosis and Testing	2
AUTO 126L	Automatic Transmission Diagnosis and Testing Laboratory	1
AUTO 126T	Automatic Transmission Diagnosis and Testing Assessment Test Out	0.5
AUTO 181	Engine Performance I Ignition and Fuel Systems	2
AUTO 181L	Engine Performance I Ignition and Fuel Systems Laboratory	1
AUTO 181T	Engine Performance I Ignition and Fuel Systems Assessment Test Out	0.5
AUTO 183	Engine Performance II Intake Exhaust and Emission Systems	2
AUTO 183L	Engine Performance II Intake Exhaust and Emission Systems Laboratory	1
AUTO 183T	Engine Performance II Intake Exhaust and Emission Systems Assessment Test Out	0.5
AUTO 111	Engine Diagnosis and Repair	2
AUTO 111L	Engine Diagnosis and Repair Laboratory	1
AUTO 111T	Engine Diagnosis and Repair Assessment Test Out	<u>0.5</u>
*AUTO 214	General Motors ASEP Work Experience	12
	Total Required	54

*Must be taken for a total of 12 units.

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Automotive Technology – General Motors ASEP. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

AUTOMOTIVE TECHNOLOGY – SERVICE MANAGEMENT
Associate in Science Degree

Many businesses need technicians with very specific skills to communicate with customers, management, and technicians about complex problems in all vehicle specialties. This specialized program emphasizes effective and equitable communication skills, and additionally includes specific compliance standards training and business management training unique to the automotive industry. Successful students will obtain highly desired skills in professional communication and industry compliance. Work experience is a requirement for this major, which ensures student competency and success. All students are required to complete a digital portfolio resume used for assessment and practicum. Students completing all courses and general education courses will receive an Associate of Science during Commencement. Students completing all automotive course requirements will receive a Certificate of Completion during Commencement.

Program Learning Outcomes

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

- Accurately describe and demonstrate knowledge of various automotive systems.
- Apply knowledge of the repair systems process by describing necessary actions by order of priority to a customer, manager, or technician.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels.

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
AUTO 210	Automotive Service Management	3
AUTO 211	Automotive Customer Service	2
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 151	Brake System Diagnosis and Repair	2
AUTO 143	Steering and Suspension Diagnosis and Repair	2
AUTO 144	Noise Vibration and Harshness Diagnosis	0.5
AUTO 181	Engine Performance I Ignition and Fuel Systems	2
AUTO 183	Engine Performance II Intake Exhaust and Emission Systems	2
AUTO 171	Climate Control Systems Diagnosis and Repair	1
AUTO 111	Engine Diagnosis and Repair	2
AUTO 194	Diesel Engine Performance and Diagnosis	2
AUTO 121	Automatic Transmission Theory and Operation	2
*AUTO 212	Automotive Technology Work Experience	<u>12</u>
	Total Required	36.5
	Plus General Education Requirements	

*Must be taken for a total of 12 units.

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Automotive Technology – Service Management. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

DEGREE AND CERTIFICATE MODIFICATIONS

AUTOMOTIVE TECHNOLOGY Associate in Science Degree

The automotive technology curriculum provides for entry level skills in the automotive field. The program is designed to impart in-depth technical skills as required in today's highly technical automotive field. It prepares students for employment in the automotive and/or transportation trades. For those currently employed, upgrading and specialization skills will be stressed. The major emphasizes practical experience in actual repairs under simulated shop conditions. The program offers two introductory courses that are recommended for all students: AUTO 99 Introduction to Automotive Technology is a lecture class that can be taken face-to-face or fully online. AUTO 100 is a laboratory class that demonstrates how to perform basic services. Students must select one of these courses before taking AUTO 120.

The Automotive Technology degree has nine ASE core competencies for students without a sponsoring business. There is no work experience requirement. All laboratory courses are taught on campus using state of the art vehicles and equipment. The curriculum provides the necessary skills needed to join and advance in the automotive field. Students may further their education and skills by adding a specialization to this degree.

Program Learning Outcomes

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

- Demonstrate and practice standardized safety and hazardous waste handling practices.
- Diagnose and repair engine mechanical and ignition problems utilizing a variety of diagnostic and repair equipment.
- Evaluate vehicle emission equipment and accurately perform a full smog inspection.
- Diagnose and repair vehicles that fail smog inspections.
- Read and interpret automotive electrical wiring diagrams to aid in the diagnosis of automotive electrical problems.
- Following prescribed industry standards, correctly utilize test equipment and tools to diagnose and repair automotive electrical systems.
- Independently demonstrate ability to perform computer system and fuel system service using related diagnostic equipment.
- Evaluate technical service bulletins for assisting in repairing various drivability concerns.
- Utilize communication skills to effectively deal with disgruntled colleagues in your work place.
- Utilize good customer relations techniques to improve customer satisfaction.
- Correctly adhere to BAR regulations involving writing repair order estimates, revising estimates, and final invoicing.
- Independently apply technical training and skill sets learned at school in an actual automotive repair shop environment.
- Accurately describe knowledge of applied science used in various automotive system operations and interrelationships.
- Diagnose and repair automotive-engineered system problems.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels.

CAREER OPPORTUNITIES

Auto Electrician
 Auto Parts Salesperson
 Automotive Air Conditioning Technician
 Brake and Front End Technician
 Computerized Engine Control Specialist
 Engine Machinist
 General Repair Technician
 High Performance and Racing Specialist
 Licensed Smog Technician
 Manufacturer Service Engineer
 Service Advisor
 Service Manager
 Technical Instructor
 Technical Sales Representative
 Transmission Technician
 Tune-up Technician

Associate in Science Degree Requirements

Course	Title	Units
AUTO 120	Engine Performance I – Mechanical and Ignition Systems	5
AUTO 122	Automotive Electrical Systems	5
AUTO 123	Engine Performance II – Fuel Systems Emission Systems	5
AUTO 127	Advanced Automotive Electrical Systems	5
AUTO 130	Automotive Brakes and Brake License	5
AUTO 180	Automotive Service Advisor	1
AUTO 182	Automotive Work Experience	3
		29

(Automotive Technology continued)

Select two of the following:

AUTO 124	Engine Performance III – Drivability	5
AUTO 129	Introduction to Hybrid, Electric and Alternative Fueled Vehicles	5
AUTO 140	Four-Wheel Alignment	5
AUTO 152	Drive Train Systems	4
AUTO 160	Air Conditioning and Heating Systems	3
		<u>7-10</u>

Select one of the following:

AUTO 135	Advanced Brakes	5
AUTO 141*	Emission Control License Fundamentals Level I Inspector Training	3
AUTO 142*	Emission License Procedures Level II Inspector Training	2
AUTO 145	Advanced Four-Wheel Alignment	5
AUTO 155	Advanced Drive Train Systems	4
AUTO 165	Advanced Air Conditioning and Heating Systems	3
AUTO 170	Engine Overhaul	5
AUTO 175	Advanced Engine Overhaul	5
		<u>2-5</u>

AUTO 099	Introduction to Automotive Technology	3
AUTO 100L	Introduction to Automotive Technology Lab	1
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 151	Brake System Diagnosis and Repair	2
AUTO 151L	Brake System Diagnosis and Repair Laboratory	1
AUTO 151T	Brake System Diagnosis and Repair Assessment Test Out	0.5
AUTO 171	Climate Control Systems Diagnosis and Repair	1
AUTO 171L	Climate Control Systems Diagnosis and Repair Laboratory	1
AUTO 171T	Climate Control Systems Diagnosis and Repair Assessment Test Out	0.5
AUTO 143	Steering and Suspension Diagnosis and Repair	2
AUTO 143L	Steering and Suspension Diagnosis and Repair Laboratory	1
AUTO 143T	Steering and Suspension Diagnosis and Repair Assessment Test Out	0.5
AUTO 144	Noise, Vibration, and Harshness Diagnosis	0.5
AUTO 144L	Noise, Vibration, and Harshness Diagnosis Laboratory	1
AUTO 144T	Noise, Vibration, and Harshness Diagnosis Assessment Test Out	0.5
AUTO 131	Manual Transmission and Transaxle Repair	1
AUTO 131L	Manual Transmission and Transaxle Repair Laboratory	1
AUTO 131T	Manual Transmission and Transaxle Assessment Test Out	0.5
AUTO 132	Differential and 4WD System Diagnosis and Repair	1
AUTO 132L	Differential and 4WD System Diagnosis and Repair Laboratory	1
AUTO 132T	Differential and 4WD System Diagnosis and Repair Assessment Test Out	0.5
AUTO 121	Automatic Transmission Theory and Operation	2
AUTO 121L	Automatic Transmission Theory and Operation Laboratory	1
AUTO 121T	Automatic Transmission Theory and Operation Assessment Test Out	0.5
AUTO 194	Diesel Engine Performance and Diagnosis	2
AUTO 194L	Diesel Engine Performance and Diagnosis Laboratory	1
AUTO 194T	Diesel Engine Performance and Diagnosis Assessment Test Out	0.5
AUTO 181	Engine Performance I Ignition and Fuel Systems	2
AUTO 181L	Engine Performance I Ignition and Fuel Systems Laboratory	1
AUTO 181T	Engine Performance I Ignition and Fuel Systems Assessment Test Out	0.5
AUTO 183	Engine Performance II Intake Exhaust and Emission Systems	2
AUTO 183L	Engine Performance II Intake Exhaust and Emission Systems Laboratory	1
AUTO 183T	Engine Performance II Intake Exhaust and Emission Systems Assessment Test Out	0.5
AUTO 111	Engine Diagnosis and Repair	2
AUTO 111L	Engine Diagnosis and Repair Laboratory	1
AUTO 111T	Engine Diagnosis and Repair Assessment Test Out	0.5

Total Required 38-44 45
 Plus General Education Requirements

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Automotive Technology. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

*Please read the course recommended preparation for AUTO 141 and 142. Most students should take both.

AUTOMOTIVE TECHNOLOGY – AUTOMOTIVE SERVICE COUNCILS OF CALIFORNIA ASCCA
Associate in Science Degree

The Automotive Service Councils of California Association (ASCCA) sponsored degree program offers a unique, on-the-job training opportunity for those students who are accepted by a sponsoring Automotive Repair Dealer (ARD) or affiliate. Training includes all National Automotive Technicians Education Foundation (NATEF) certification areas for Master Technician Certification. Students will be required to further their studies in an ASCCA-sponsoring repair facility dealership as a paid apprentice, work experience technician. This program requires an application, a sponsor relationship with an ASCCA repair dealer, or affiliated member business of the association. Successful students will gain over 1000 hours of documented and evaluated paid work experience relating to the learning objectives of the program, Automotive Service Excellence master eCertifications, and California Smog Inspector and Repair Technician licensing training. This is an excellent major for students wanting to own or operate an independent business.

Program Learning Outcomes

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

- Perform technical and competent repairs, and professional level diagnosis and descriptions of necessary repairs, of various vehicles and designed systems, for independent dealerships and other affiliated businesses.
- Diagnose analytically, service and maintain automobiles using recommended procedures, special tools, and service publications, and demonstrate knowledge by properly describing cause, effect, and costs to consumers.
- Graduate and continue university education, and advance in position as an automotive technician, service manager, business owner, engineer, or desired career goals, and by additional experience and education demonstrate capability to master new technology systems and components as they are introduced, and become a leader in the transportation industry.
- Provide customer service and business management expertise by attending various required ASCCA meetings, college courses, and training seminars to promote the ethics standards of the association, and other affiliated professional organizations and businesses.
- Accurately describe and demonstrate knowledge of various automotive system operations and interrelationships at an ASCCA Automotive Repair Dealership or affiliate.
- Diagnose and repair automotive system problems by performing necessary actions at an ASCCA ARD or affiliate.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels

Associate in Science Degree Requirements:

Course	Title	Units
Required Core:		
AUTO 099	Introduction to Automotive Technology	3
or		
AUTO 100	Introduction to Automotive Technology Lab	1
AUTO 122	Automotive Electrical Systems	5
AUTO 123	Engine Performance II Emissions Systems	5
AUTO 129	Introduction to Hybrid Electric Vehicles	5
AUTO 130	Automotive Brakes and Brake License	5
AUTO 140	Four Wheel Alignment	5
AUTO 141	Emission Control License Fundamentals Level I Inspector Training	3
AUTO 142	Emission License Procedures Level II Inspector Training	2
AUTO 182*	Automotive Work Experience	12
AUTO 099	Introduction to Automotive Technology	3
AUTO 100L	Introduction to Automotive Technology Laboratory	1
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 151	Brake System Diagnosis and Repair	2
AUTO 151L	Brake System Diagnosis and Repair Laboratory	1
AUTO 151T	Brake System Diagnosis and Repair Assessment Out	0.5
AUTO 143	Steering and Suspension Diagnosis and Repair	2
AUTO 143L	Steering and Suspension Diagnosis and Repair Laboratory	1
AUTO 143T	Steering and Suspension Diagnosis and Repair Assessment Test Out	0.5
AUTO 284	Level I Smog Inspector Training	2
AUTO 284L	Level I Smog Inspector Training Laboratory	1
AUTO 284T	Level I Smog Inspector Training Assessment Test Out	0.5
AUTO 285	Level II Smog Inspector Training	1
AUTO 285L	Level II Smog Inspector Training Laboratory	1
AUTO 285T	Level II Smog Inspector Training Assessment Test Out	0.5
AUTO 264	Hybrid and Electric Vehicle Operation and Diagnosis	1
AUTO 264L	Hybrid and Electric Vehicle Operation and Diagnosis Laboratory	1
AUTO 264T	Hybrid and Electric Vehicle Operation and Diagnosis Assessment Test Out	0.5
AUTO 183	Engine Performance II Intake Exhaust and Emission Systems	2
AUTO 183L	Engine Performance II Intake Exhaust and Emission Systems Laboratory	1
AUTO 183T	Engine Performance II Intake Exhaust and Emission Systems Assessment Test Out	0.5
*AUTO 213	ASCCA Work Experience	12

(Automotive Technology – Automotive Service Councils of California ASCCA continued)

Total Required
Plus General Education Requirements

~~43-45~~ 42

*Must be taken for a total of 12 units.

~~*Note: Automotive work experience classes are from 1 to 4 credit units per semester.~~

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Automotive Technology – Automotive Service Councils of California ASCCA. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

AUTOMOTIVE TECHNOLOGY – CHASSIS SPECIALIST BRAKES AND FRONT-END
Associate in Science Degree Certificate of Achievement

Many businesses need technicians with very specific skills to diagnose and repair complex problems of brakes, suspension, and dynamic vehicle driving systems. This specialized degree includes antilock braking, electronic suspension, and alignment training. Successful students will qualify to take the California Bureau of Automotive Licensing exams for Brake and Lamp licensing. Work experience is a requirement for this major, which ensures student competency and success. All students are required to complete a digital portfolio resume used for assessment and practicum. Students completing all courses and general education courses will receive an Associate of Science during Commencement. Students completing all automotive course requirements will receive a Certificate of Achievement during Commencement.

Program Learning Outcomes

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

- ~~Demonstrate and practice standardized safety and hazardous waste handling practices.~~
- ~~Perform various brake system repairs to prescribed industry standards.~~
- ~~Diagnose and repair Anti-lock Brake systems.~~
- ~~Using prescribed industry standards, diagnose and repair/replace steering and suspension components.~~
- ~~Diagnose wheel alignment and tire related problems and align vehicles to industry specifications.~~
- ~~Utilize communications skills to effectively deal with disgruntled colleagues in your work place.~~
- ~~Utilize good customer relations techniques to improve customer satisfaction.~~
- ~~Correctly adhere to BAR regulations involving writing repair orders estimates, revising estimates and final invoicing.~~
- ~~Independently apply technical training and skill sets learned at school in an actual automotive repair shop environment.~~
- Accurately describe and demonstrate knowledge of various automotive brake, steering, and suspension systems.
- Diagnose and repair automotive chassis systems by performing necessary actions.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels.

Associate in Science Degree Requirements:

Course	Title	Units
AUTO 130	Automotive Brakes and Brake License	5
AUTO 140	Four Wheel Alignment	5
AUTO 145	Advanced Four Wheel Alignment	5
AUTO 180	Automotive Service Advisor	1
AUTO 182	Automotive Work Experience	3
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 151	Brake System Diagnosis and Repair	2
AUTO 151L	Brake System Diagnosis and Repair Laboratory	1
AUTO 151T	Brake System Diagnosis and Repair Assessment Test Out	0.5
AUTO 153	Advanced Brake System Diagnosis and Repair	2
AUTO 153L	Advanced Brake System Diagnosis and Repair Laboratory	1
AUTO 153T	Advanced Brake System Diagnosis and Repair Assessment Test Out	0.5
AUTO 143	Steering and Suspension Diagnosis and Repair	2
AUTO 143L	Steering and Suspension Diagnosis and Repair Laboratory	1
AUTO 143T	Steering and Suspension Diagnosis and Repair Assessment Test Out	0.5
AUTO 144	Noise, Vibration, and Harshness Diagnosis	0.5
AUTO 144L	Noise, Vibration, and Harshness Diagnosis Laboratory	1
AUTO 144T	Noise, Vibration, and Harshness Diagnosis Assessment Test Out	0.5
AUTO 131	Manual Transmission and Transaxle Repair	1
AUTO 131L	Manual Transmission and Transaxle Repair Laboratory	1
AUTO 131T	Manual Transmission and Transaxle Repair Assessment Test Out	0.5
AUTO 132	Differential and 4WD System Diagnosis and Repair	1
AUTO 132L	Differential and 4WD System Diagnosis and Repair Laboratory	1
AUTO 132T	Differential and 4WD System Diagnosis and Repair Assessment Test Out	0.5
*AUTO 212	Automotive Technology Work Experience	12
Total Required		19 36.5
Plus General Education Requirements		

*Must be taken for a total of 12 units.

Certificate of Achievement

Students who complete the requirements above qualify for a Certificate in Automotive Technology – Chassis Specialist Brakes and Front-End. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

AUTOMOTIVE TECHNOLOGY – ENGINE PERFORMANCE AND DRIVETRAIN SPECIALIST
Associate in Science Degree Certificate of Achievement

Many businesses need technicians with very specific skills to diagnose and repair complex problems of transmissions, transaxles, and differential vehicle power systems. This specialized degree includes electronic controlled valve bodies, electronic differentials, four wheel drive, and all-wheel drive systems. Successful students will obtain a highly desired specialty set of skills. Work experience is a requirement for this major, which ensures student competency and success. All students are required to complete a digital portfolio resume used for assessment and practicum. Students completing all courses and general education courses will receive an Associates of Science during Commencement. Students completing all automotive course requirements will receive a Certificate of Completion during Commencement.

Program Learning Outcomes

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

- ~~Demonstrate and practice standardized safety and hazardous waste handling practices.~~
- ~~Diagnose and repair engine mechanical and ignition problems utilizing a variety of diagnostic and repair equipment.~~
- ~~Using prescribed industry standards, correctly utilize test equipment and tools to diagnose and repair automotive electrical systems.~~
- ~~Retrieve manufacturers repair data and specifications and utilize this information for accurate diagnosis and repair.~~
- ~~Following prescribed industry guidelines, diagnosis, remove, repair and replace automatic and manual transmissions and transaxles.~~
- ~~Perform engine repairs to prescribed industry standards.~~
- ~~Following prescribed industry standards, accurately measure and perform various machining processes on engine components.~~
- ~~Utilize communications skills to effectively deal with disgruntled colleagues in your work place.~~
- ~~Utilize good customer relations techniques to improve customer satisfaction.~~
- ~~Correctly adhere to BAR regulations involving writing repair orders estimates, revising estimates and final invoicing.~~
- ~~Independently apply technical training and skill sets learned at school in an actual automotive repair shop environment.~~
- Accurately describe and demonstrate knowledge of various automotive automatic, manual, electric and electronic drivetrain systems.
- Diagnose and repair automotive power transmission systems by performing necessary actions.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels.

Associate in Science Degree Certificate Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
AUTO 120	Engine Performance I – Mechanical and Ignition Systems	5
AUTO 122	Automotive Electrical Systems	5
AUTO 152	Drive Train Systems	4
AUTO 170	Engine Overhaul	5
AUTO 182	Automotive Work Experience	3
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 131	Manual Transmission and Transaxle Repair	1
AUTO 131L	Manual Transmission and Transaxle Repair Laboratory	1
AUTO 131T	Manual Transmission and Transaxle Repair Assessment Test Out	0.5
AUTO 132	Differential and 4WD System Diagnosis and Repair	1
AUTO 132L	Differential and 4WD System Diagnosis and Repair Laboratory	1
AUTO 132T	Differential and 4WD System Diagnosis and Repair Assessment Test Out	0.5
AUTO 121	Automatic Transmission Theory and Operation	2
AUTO 121L	Automatic Transmission Theory and Operation Laboratory	1
AUTO 121T	Automatic Transmission Theory and Operation Assessment Test Out	0.5
AUTO 126	Automatic Transmission Diagnosis and Testing	2
AUTO 126L	Automatic Transmission Diagnosis and Testing Laboratory	1
AUTO 126T	Automatic Transmission Diagnosis and Testing Assessment Test Out	0.5
AUTO 263	Advanced Electronics	1
AUTO 263L	Advanced Electronics Laboratory	1
AUTO 263T	Advanced Electronics Assessment Test Out	0.5
AUTO 264	Hybrid and Electric Vehicle Operation and Diagnosis	1
AUTO 264L	Hybrid and Electric Vehicle Operation and Diagnosis Laboratory	1
AUTO 264T	Hybrid and Electric Vehicle Operation and Diagnosis Assessment Test Out	0.5
*AUTO 212	Automotive Technology Work Experience	12
	Total Required	22 36
	Plus General Education Requirements	

*Must be taken for a total of 12 units.

Certificate of Achievement

Students who complete the requirements above qualify for a Certificate in Automotive Technology – Engine Performance and Drivetrain Specialist. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

**AUTOMOTIVE TECHNOLOGY – ADVANCED ENGINE PERFORMANCE SPECIALIST AND EMISSIONS
Associate in Science Degree Certificate of Achievement**

Many businesses need technicians with very specific skills to repair emission system failures or complex problems relating to the fuel, ignition, and/or engine systems. This specialized degree includes hybrid and electric vehicle, and gasoline and diesel fuel systems training. Successful students will qualify to take the California Bureau of Automotive Licensing exams for Smog Inspector and Repair licensing. Work experience is a requirement for this major, which ensures student competency and success. All students are required to complete a digital portfolio resume used for assessment and practicum. Students completing all courses and general education courses will receive an Associates of Science during Commencement. Students completing all automotive course requirements will receive a Certificate of Achievement during Commencement.

Program Learning Outcomes

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

- ~~Demonstrate and practice standardized safety and hazardous waste handling practices~~
- ~~Diagnose and repair engine mechanical and ignition problems utilizing a variety of diagnostic and repair equipment.~~
- ~~Evaluate vehicle emission equipment and accurately perform a full smog inspection.~~
- ~~Diagnose and repair vehicles that fail smog inspections.~~
- ~~Read and interpret automotive electrical wiring diagrams to aid in the diagnosis of automotive electrical problems.~~
- ~~Using prescribed industry standards, correctly utilize test equipment and tools to diagnose and repair automotive electrical systems.~~
- ~~Independently demonstrate ability to perform computer system and fuel system service using related diagnostic equipment.~~
- ~~Evaluate technical service bulletins to assist in repair of various drivability concerns.~~
- Accurately describe and demonstrate knowledge of various automotive emission control systems.
- Diagnose and repair automotive emission control systems by performing necessary actions.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels.

Associate in Science Degree Certificate Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
AUTO 120	Engine Performance I – Mechanical and Ignition Systems	5
AUTO 122	Automotive Electrical Systems	5
AUTO 123	Engine Performance II – Fuel Systems Emission Systems	5
AUTO 124	Engine Performance III – Drivability	5
AUTO 141	Emission Control License Fundamentals Level I Inspector Training	3
AUTO 142	Emission License Procedures Level II Inspector Training	2
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 181	Engine Performance I Ignition and Fuel Systems	2
AUTO 181L	Engine Performance I Ignition and Fuel Systems Laboratory	1
AUTO 181T	Engine Performance I Ignition and Fuel Systems Assessment Test Out	0.5
AUTO 183	Engine Performance II Intake Exhaust and Emission Systems	2
AUTO 183L	Engine Performance II Intake Exhaust and Emission Systems Laboratory	1
AUTO 183T	Engine Performance II Intake Exhaust and Emission Systems Assessment Test Out	0.5
AUTO 283	Advanced Engine Performance	1
AUTO 283L	Advanced Engine Performance Laboratory	1
AUTO 283T	Advanced Engine Performance Assessment Test Out	0.5
AUTO 284	Level I Smog Inspector Training	2
AUTO 284L	Level I Smog Inspector Training Laboratory	1
AUTO 284T	Level I Smog Inspector Training Assessment Test Out	0.5
AUTO 285	Level II Smog Inspector Training	1
AUTO 285L	Level II Smog Inspector Training Laboratory	1
AUTO 285T	Level II Smog Inspector Training Assessment Test Out	0.5
AUTO 111	Engine Diagnosis and Repair	2
AUTO 111L	Engine Diagnosis and Repair Laboratory	1
AUTO 111T	Engine Diagnosis and Repair Assessment Test Out	0.5
AUTO 194	Diesel Engine Performance and Diagnosis	2
AUTO 194L	Diesel Engine Performance and Diagnosis Laboratory	1
AUTO 194T	Diesel Engine Performance and Diagnosis Assessment Test Out	0.5
AUTO 263	Advanced Electronics	1
AUTO 263L	Advanced Electronics Laboratory	1
AUTO 263T	Advanced Electronics Assessment Test Out	0.5
AUTO 264	Hybrid and Electric Vehicle Operation and Diagnosis	1
AUTO 264L	Hybrid and Electric Vehicle Operation and Diagnosis Laboratory	1
AUTO 264T	Hybrid and Electric Vehicle Operation and Diagnosis Assessment Test Out	0.5
*AUTO 212	Automotive Technology Work Experience	12

Total Required 25 46.5
Plus General Education Requirements

(Automotive Technology – Engine Performance Specialist continued)

*Must be taken for a total of 12 units.

Certificate of Achievement

Students who complete the requirements above qualify for a Certificate in Automotive Technology – ~~Advanced~~ Engine Performance Specialist and Emissions. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

AUTOMOTIVE TECHNOLOGY – FORD ASSET

Associate in Science Degree

The Ford sponsored Automotive Student Service Education Training (ASSET) degree and certification program offers a unique job training opportunity to those students who are sponsored by a Ford dealership. The training includes all major content areas of Ford hybrid, electric, diesel, gasoline, alternative fuels and light and heavy trucks. In addition, students will be required to further their studies in a sponsoring dealership. Work experience classes can be used by a student to demonstrate competency and efficiency performing prescribed tasks for certification. Students seeking an associate's degree who test low in English, reading or math assessment scores will be required to take remedial courses in those areas in addition to the general education courses. Students who have previous college credit or an associate degree or higher may be exempt from all or part of the general education and Ford ASSET major credit requirements. Furthermore, students may use previous military training, automotive classes from accredited colleges, trade schools, or manufacturers training for credit by examination, please see a counselor or the department coordinator. There are two pathways: Traditional Face to Face and Distance Education

The Ford sponsored Automotive Student Service Education Training (ASSET) degree program offers a unique job training opportunity to students sponsored by a Ford dealership. The training includes all major content areas of Ford automotive systems. Students will demonstrate competency by efficiently performing prescribed tasks for Ford certification through laboratory or work experience assessments. Students who have previous college credit or an associate degree or higher may be exempt from all or part of the general education and Ford ASSET major credit requirements. Furthermore, students may use previous military training, automotive classes from accredited colleges, trade schools, or manufacturers training for credit by examination. Please contact the department coordinator for more details.

Program Learning Outcomes

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

- ~~Independently diagnose Ford vehicles at a Ford dealership using knowledge skills and abilities demonstrating the proper use of tools, the workshop manual, and service information systems.~~
- ~~Effectively repair various mechanical and electronic systems and subsystems using the Ford symptom to system to component to cause (SSCC) process.~~
- ~~Communicate throughout the repair process with dealership and Ford personnel properly describing the diagnosis and repair processes according to state and federal regulations.~~
- ~~Comply with federal and state pollution and safety regulations ensuring Ford Motor Company standards of ethics are demonstrated.~~
- Accurately describe and demonstrate knowledge of Ford automotive system operations and interrelationships.
- Diagnose and repair Ford automotive system problems by performing necessary actions.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels.

Associate in Science Degree Requirements:

Course	Title	Units
AUTO 190	ASSET Orientation, PDI and Lubrication	2
AUTO 191	ASSET Brakes, Advanced Brakes, Suspension and NVH	7
or		
AUTO 191ABCDE	ASSET Brakes and ASSET Brakes, Advanced Brakes, Steering and Suspension, NVH TEST OUT and ASSET Dynamic Vehicle Brakes and Suspension and Noise Vibration Harshness	4.5
AUTO 192	ASSET Drive Train	8
or		
AUTO 192ABCD	ASSET Automatic Transmission Service and ASSET Transmission Diagnosis and Service TEST OUT and ASSET Automatic Transmission Diagnosis and ASSET Differential and 4WD Diagnosis and Service	5.5
AUTO 193	ASSET Engine Repair	4.5
or		
AUTO 193ABC	ASSET Engine Diagnosis and Repair and ASSET Engine Diagnosis and Repair TEST OUT and ASSET Diesel Engine Performance and Diagnosis	4.5
AUTO 195	ASSET Electronic Engine Controls	7
or		
AUTO 195ABCD	ASSET Engine Performance Theory and Operation and ASSET Engine Performance Diagnosis and Repair Test Out and ASSET Engine Performance Diagnosis and Testing and Gasoline Turbo Direct Injection	5
AUTO 196	ASSET Electrical, Accessories and Air Conditioning	5
or		
AUTO 196ABCD	ASSET Electrical and ASSET Electrical, Electronics, Climate Control TEST OUT and	5.5

(Automotive Technology – Ford Asset continued)

	ASSET - Electronics and	
	ASSET - Climate Control	
AUTO 197*	ASSET - Work Experience	12
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 144	Noise Vibration and Harshness Diagnosis	0.5
AUTO 144L	Noise Vibration and Harshness Diagnosis Laboratory	1
AUTO 144T	Noise Vibration and Harshness Diagnosis Assessment Test Out	0.5
AUTO 151	Brake System Diagnosis and Repair	2
AUTO 151L	Brake System Diagnosis and Repair Laboratory	1
AUTO 151T	Brake System Diagnosis and Repair Assessment Test Out	0.5
AUTO 153	Advanced Brake System Diagnosis and Repair	2
AUTO 153L	Advanced Brake System Diagnosis and Repair Laboratory	1
AUTO 153T	Advanced Brake System Diagnosis and Repair Assessment Test Out	0.5
AUTO 143	Steering and Suspension Diagnosis and Repair	2
AUTO 143L	Steering and Suspension Diagnosis and Repair Laboratory	1
AUTO 143T	Steering and Suspension Diagnosis and Repair Assessment Test Out	0.5
AUTO 132	Differential and 4WD System Diagnosis and Repair	1
AUTO 132L	Differential and 4WD System Diagnosis and Repair Laboratory	1
AUTO 132T	Differential and 4WD System Diagnosis and Repair Assessment Test Out	0.5
AUTO 171	Climate Control Systems Diagnosis and Repair	1
AUTO 171L	Climate Control Systems Diagnosis and Repair Laboratory	1
AUTO 171T	Climate Control Systems Diagnosis and Repair Assessment Test Out	0.5
AUTO 121	Automatic Transmission Theory and Operation	2
AUTO 121L	Automatic Transmission Theory and Operation Laboratory	1
AUTO 121T	Automatic Transmission Theory and Operation Assessment Test Out	0.5
AUTO 126	Automatic Transmission Diagnosis and Testing	2
AUTO 126L	Automatic Transmission Diagnosis and Testing Laboratory	1
AUTO 126T	Automatic Transmission Diagnosis and Testing Assessment Test Out	0.5
AUTO 181	Engine Performance I Ignition and Fuel Systems	2
AUTO 181L	Engine Performance I Ignition and Fuel Systems Laboratory	1
AUTO 181T	Engine Performance I Ignition and Fuel Systems Assessment Test Out	0.5
AUTO 183	Engine Performance II Intake Exhaust and Emission Systems	2
AUTO 183L	Engine Performance II Intake Exhaust and Emission Systems Laboratory	1
AUTO 183T	Engine Performance II Intake Exhaust and Emission Systems Assessment Test Out	0.5
AUTO 111	Engine Diagnosis and Repair	2
AUTO 111L	Engine Diagnosis and Repair Laboratory	1
AUTO 111T	Engine Diagnosis and Repair Assessment Test Out	0.5
*AUTO 215	Ford ASSET Work Experience	12
	Total Required	38.5-46 54
	Plus General Education Requirements	

*Must be taken for a total of 12 units.

Note: English and math requirements should be accomplished during the first year of enrollment. All other GE requirements should be accomplished during the second year.

AUTOMOTIVE TECHNOLOGY – GENERAL MOTORS ASEP Associate in Science Degree

The General Motors sponsored Automotive Service Education Program (ASEP) degree program offers a unique job training opportunity to those students who are accepted. Training includes all systems of GM the sponsoring manufacturers' automobiles. In addition, students will be required to further their studies in a sponsoring dealership as a paid GM student (work experience) technician. ~~Students who test low in English, reading or math assessment scores (and are accepted into the program) will be required to take remedial courses in those areas in addition to the general education courses.~~ Students who have previous college credit or an associate degree or higher may be exempt from all or part of the general education requirements; please see a counselor or coordinator.

Program Learning Outcomes

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

- ~~• Demonstrate and practice standardized safety and hazardous waste handling practices.~~
- ~~• Describe the work flow processes utilized by new car dealership service departments.~~
- ~~• Perform lubrication maintenance service and minor maintenance services.~~
- ~~• Perform service repair and diagnosis of vehicle suspension, steering and brake systems utilizing a variety of tools and equipment.~~
- ~~• Retrieve manufacturers' repair data and specifications and utilize this information for accurate diagnosis and repair.~~
- ~~• Following prescribed industry guidelines, diagnose, remove, repair and replace automatic and manual transmissions and transaxles.~~
- ~~• Perform engine repairs to prescribed industry standards.~~
- ~~• Following prescribed industry standards, accurately measure and perform various machining processes on engine components.~~
- ~~• Diagnose and repair engine mechanical and ignition problems utilizing a variety of diagnostic and repair equipment.~~
- ~~• Independently demonstrate ability to perform computer system and fuel system service using related diagnostic equipment.~~
- ~~• Evaluate technical service bulletins for assisting in repairing various drivability concerns.~~
- ~~• Independently demonstrate ability to perform electronic engine diagnostics on both gasoline and diesel engines.~~
- ~~• Following prescribed industry standards, correctly utilize test equipment and tools to diagnose and repair automotive electrical systems.~~
- ~~• Utilizing prescribed industry practices, diagnose, repair, remove and replace air conditioning and heating systems and components.~~
- ~~• Independently apply technical training and skill sets learned at school in an actual automotive repair shop environment.~~
- ~~• Evaluate vehicle emission equipment and accurately perform a full smog inspection.~~
- ~~• Diagnose and repair vehicles that fail smog inspections.~~
- Accurately describe and demonstrate knowledge of General Motors automotive system operations and interrelationships.
- Diagnose and repair General Motors automotive system problems by performing necessary actions.
- Communicate effectively and professionally in a diverse setting that includes colleagues, clients, and supervisors.
- Comply with environmental health and safety regulations at the state and federal levels.

Associate in Science Degree Requirements:

Course	Title	Units
AUTO 141	Emission Control License Fundamentals Level I Inspector Training	3
AUTO 142	Emission License Procedures Level II Inspector Training	2
AUTO 200	ASEP Orientation	1
AUTO 201	ASEP Electrical	6
AUTO 202	ASEP Brakes and Alignment	7
AUTO 203	ASEP Engine Repair	4.5
AUTO 204	ASEP Power Train	7
AUTO 205	ASEP Engine Performance and Air Conditioning	7
AUTO 206*	ASEP Work Experience	15
AUTO 161	Electrical Diagnosis and Repair	2
AUTO 161L	Electrical Diagnosis and Repair Laboratory	1
AUTO 161T	Electrical Diagnosis and Repair Assessment Test Out	0.5
AUTO 162	Electronics Diagnosis and Repair	2
AUTO 162L	Electronics Diagnosis and Repair Laboratory	1
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out	0.5
AUTO 144	Noise Vibration and Harshness Diagnosis	0.5
AUTO 144L	Noise Vibration and Harshness Diagnosis Laboratory	1
AUTO 144T	Noise Vibration and Harshness Diagnosis Assessment Test Out	0.5
AUTO 151	Brake System Diagnosis and Repair	2
AUTO 151L	Brake System Diagnosis and Repair Laboratory	1
AUTO 151T	Brake System Diagnosis and Repair Assessment Test Out	0.5
AUTO 153	Advanced Brake System Diagnosis and Repair	2
AUTO 153L	Advanced Brake System Diagnosis and Repair Laboratory	1
AUTO 153T	Advanced Brake System Diagnosis and Repair Assessment Test Out	0.5
AUTO 143	Steering and Suspension Diagnosis and Repair	2
AUTO 143L	Steering and Suspension Diagnosis and Repair Laboratory	1
AUTO 143T	Steering and Suspension Diagnosis and Repair Assessment Test Out	0.5
AUTO 132	Differential and 4WD System Diagnosis and Repair	1
AUTO 132L	Differential and 4WD System Diagnosis and Repair Laboratory	1
AUTO 132T	Differential and 4WD System Diagnosis and Repair Assessment Test Out	0.5
AUTO 171	Climate Control Systems Diagnosis and Repair	1
AUTO 171L	Climate Control Systems Diagnosis and Repair Laboratory	1
AUTO 171T	Climate Control Systems Diagnosis and Repair Assessment Test Out	0.5

(Automotive Technology – General Motors ASEP continued)

AUTO 121	Automatic Transmission Theory and Operation	2
AUTO 121L	Automatic Transmission Theory and Operation Laboratory	1
AUTO 121T	Automatic Transmission Theory and Operation Assessment Test Out	0.5
AUTO 126	Automatic Transmission Diagnosis and Testing	2
AUTO 126L	Automatic Transmission Diagnosis and Testing Laboratory	1
AUTO 126T	Automatic Transmission Diagnosis and Testing Assessment Test Out	0.5
AUTO 181	Engine Performance I Ignition and Fuel Systems	2
AUTO 181L	Engine Performance I Ignition and Fuel Systems Laboratory	1
AUTO 181T	Engine Performance I Ignition and Fuel Systems Assessment Test Out	0.5
AUTO 183	Engine Performance II Intake Exhaust and Emission Systems	2
AUTO 183L	Engine Performance II Intake Exhaust and Emission Systems Laboratory	1
AUTO 183T	Engine Performance II Intake Exhaust and Emission Systems Assessment Test Out	0.5
AUTO 111	Engine Diagnosis and Repair	2
AUTO 111L	Engine Diagnosis and Repair Laboratory	1
AUTO 111T	Engine Diagnosis and Repair Assessment Test Out	0.5
*AUTO 214	General Motors ASEP Work Experience	12

Total Required 52.5
Plus General Education Requirements 54

*Must be taken for a total of 12 units.

~~*Must be taken five times for a total of 15 units.~~

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Automotive Technology – General Motors ASEP. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.