



# AUTOMOTIVE AND RELATED TECHNOLOGY

Pathway: **Advanced Transportation & Manufacturing**  
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## AUTOMOTIVE AND RELATED TECHNOLOGY

### Associate in Science Degree Major Units: 36

Students who complete this degree will be able to perform jobs as a diagnostics, to troubleshoot and repair problems occurring in automotive anti-lock braking systems (ABS), electrical/electronic systems, engine performance, drivability, suspension and steering, automatic and manual transmissions, transaxles, engine repair, heating and air conditioning.

Requirements for the Associate in Science degree in Automotive and Related Technology may be met by completing 36 units of Required Courses with a "C" or better along with General Education units. Information on the General Education unit requirements may be found in the catalog under Graduation Requirements.

Students should take the 6 basic courses during Semester I and Semester II:

Award Title	Award Type	GE Units	Required Course Units	Major Elective Units	Major Units
Automotive and Related Technology	A.S.	21	36	-	36
Automotive and Related Technology	C		36	-	36
Auto & Related Technology: Tune-up	C		18	-	18
Auto & Related Technology: Transmission Repair	C		18	-	18

At least 60 degree applicable units are required to earn an Associate degree.

For additional related degrees and certificates, refer to programs under Automotive Collision Repair, Diesel and Related Technologies, Hybrid & Electric Technology, Motorcycle Repair Mechanics and Rail Vehicle Maintenance.

## PROGRAM OVERVIEW

Los Angeles' long-time infatuation with the motorcar has made it a leading center in automotive design. Employment opportunities continue to thrive, and the demand for trained automotive technicians in the field continues to increase. The Automotive and Related Technology program trains students to work as professionals in this field, offering instruction in maintenance, diagnosis and overhaul procedures of electrical and fuel injection systems.

By fulfilling the program requirements, students will have gained the skills necessary to maintain, repair, and diagnose electrical, fuel injection systems, and overhaul procedures, as well as basic shop practices needed to meet industry standards.

## PROGRAM LEARNING OUTCOMES (PLOs)

- Upon completion of the Degree/Certificate program, students are able to:
1. Diagnose and repair various types of vehicles using tools and equipment in accordance with industry standards and NATEF safety.
  2. Students will demonstrate problem solving skills and technical skills in the automotive industry.
  3. Write vehicle repair estimates in accordance with NATEF standards.

## REQUIRED COURSES

SEMESTER I & II		UNITS
AUTORTK 100	Heating and Air Conditioning Systems Theory, Inspection, & RPR (Repair)	3
AUTORTK 113	Drive Train Components Principles & Practices	3
AUTORTK 114	Steering, Suspension, Brakes, Principles & Practices	3
AUTORTK 121	Basic Engine Theory, Inspection & Repair	3
AUTORTK 122	Electrical/Electronic Systems Theory, Inspection & Repair	3
AUTORTK 123	Fuel & Emissions Systems Theory, Inspection & Repair	3

SEMESTER III		UNITS
AUTORTK 130	Automotive Theory and Repair I	3
AUTORTK 131	Automotive Theory and Repair II	3
AUTORTK 135	Computer Control and Fuel Injection	3

  

SEMESTER IV		UNITS
AUTORTK 140	Automotive Theory and Repair IV	3
AUTORTK 141	Automotive Theory and Repair V	3
AUTORTK 142	Automotive Theory and Repair VI	3

NOTE: Students are required to provide basic hand tools, Transportation Technology uniform and personal safety equipment.

## AUTOMOTIVE AND RELATED TECHNOLOGY

### Certificate of Achievement Major Units: 36

A Certificate of Achievement in Automotive and Related Technology may be earned by completing 36 units of Required Courses listed under the Associates degree in Automotive and Related Technology with a "C" or better in each course.

## AUTO & RELATED TECHNOLOGY: TRANSMISSION REPAIR

### Certificate of Achievement

Major Units: 18

A Certificate of Achievement in Automotive and Related Technology: Transmission Repair may be earned by completing 18 units of Required Courses with a "C" or better in each course.

#### PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

1. Diagnose and repair various types of vehicles using tools and equipment in accordance with industry standards and NATEF safety.
2. Students will demonstrate problem solving skills and technical skills in the automotive industry.
3. Demonstrate transmission vehicle diagnosis and repair skills accordance with NATEF and industry standards.

REQUIRED COURSES		UNITS
AUTORTK 100	Heating and Air Conditioning Systems Theory, Inspection, & RPR (Repair)	3
AUTORTK 113	Drive Train Components Principles & Practices	3
AUTORTK 114	Steering, Suspension, Brakes, Principles & Practices	3
AUTORTK 121	Basic Engine Theory, Inspection & Repair	3
AUTORTK 122	Electrical/Electronic Systems Theory, Inspection & Repair	3
AUTORTK 123	Fuel & Emissions Systems Theory, Inspection & Repair	3

## AUTO & RELATED TECHNOLOGY: TUNE-UP

### Certificate of Achievement

Major Units: 18

A Certificate of Achievement in Automotive and Related Technology: Tune-Up may be earned by completing 18 units of Required Courses with a "C" or better in each course.

#### PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the **Certificate** program, students are able to:

1. Diagnose and repair various types of vehicles using tools and equipment in accordance with industry standards and NATEF safety.
2. Students will demonstrate problem solving skills and technical skills in the automotive industry.
3. Demonstrate tune-up vehicle repair skills accordance with NATEF and industry standards.

REQUIRED COURSES		UNITS
AUTORTK 100	Heating and Air Conditioning Systems Theory, Inspection & RPR (Repair)	3
AUTORTK 121	Basic Engine Theory Inspection and Repair	3
AUTORTK 122	Electrical/Electronic Systems Theory, Inspection & Repair	3
AUTORTK 123	Fuel & Emissions Systems Theory, Inspection & Repair	3
AUTORTK 131	Automotive Theory and Repair II	3
AUTORTK 135	Computer Control and Fuel Injection	3

## USEFUL LATTC LINKS:

**College Catalog:** <http://college.lattc.edu/catalog/>

**Financial Aid Office:** <http://college.lattc.edu/financialaid/>

**Counseling Department:** <http://college.lattc.edu/counseling/>

**General Education Information:** <http://college.lattc.edu/catalog>

**Advanced Transportation & Manufacturing Pathway:**  
<http://pathways.lattc.edu/atm>

You can enroll in these classes by logging on to the Student Information System at <http://college.lattc.edu/student/new-students/register-now/>

*For additional information consult a LATTC college counselor.*