



21250 Stevens Creek Blvd.  
Cupertino, CA 95014  
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Academic Year  
**2016 - 2017**

# Automotive Technology

An entry-level program for full-time day students

Business, Computer Sciences and  
Applied Technologies Division  
Bldg. L1, Room L14  
408-864-8797

Counseling and Advising Center  
Student and Community  
Services Bldg., 2nd Fl.  
408-864-5400

Please visit the Counseling Center to apply for degrees and for academic planning assistance.

## Certificate of Achievement Requirements

A minimum "C" grade in each major course.

Note: A maximum of six (6) quarter units may be transferred from other academic institutions.

## Certificate of Achievement-Advanced Requirements

1. A minimum "C" grade in each major course.
2. Demonstrated proficiency in English and mathematics as evidenced by eligibility for EWRT 1A or EWRT 1AH or ESL 5 and eligibility for MATH 114.

Note: A maximum of 18 quarter units may be transferred from other academic institutions.

## A.A./A.S. Degree Requirements

1. Completion of all General Education (GE) requirements (31-42 quarter units) for the A.A./A.S. degree. GE units must be completed with a minimum 2.0 GPA ("C" average).
2. Completion of all major requirements. Each major course must be completed with a minimum "C" grade.  
Major courses can also be used to satisfy GE requirements (except for Liberal Arts degrees).

Note: A maximum of 22 quarter units from other academic institutions may be applied toward the major.

3. Completion of a minimum of 90 degree-applicable quarter units (GE and major units included). All De Anza courses must be completed with a minimum 2.0 GPA ("C" average). All De Anza courses combined with courses transferred from other academic institutions must be completed with a minimum 2.0 GPA ("C" average).

Note: A minimum of 24 quarter units must be earned at De Anza College.

Major courses for certificates and degrees must be completed with a letter grade unless a particular course is only offered on a pass/no-pass basis

## Advanced Automotive Technology

### Certificate of Achievement

This Certificate of Achievement prepares students for an entry-level position in the automotive repair industry in advanced automotive electrical/environmental concepts.

Student Learning Outcomes - upon completion, students will be able to:

- demonstrate understanding of general advanced automotive electrical/environmental concepts as they relate to automotive service, diagnosis, and repair.

1. Meet the requirements for this certificate level.
2. Complete the following.

AUTO 60K	Automotive Body Electrical Systems	4.5
AUTO 66	Automotive Air Conditioning	4.5
AUTO 67A	Hybrid Electric Vehicles	4.5
AUTO 67B	Plug-In Electric Vehicle Technology	4.5
AUTO 67J	Introduction to Automotive and Light Truck Diesel Systems	4.5
<b>Total Units Required .....</b>		<b>22.5</b>

## Automotive Technology

### Certificate of Achievement-Advanced (Options A - C)

Complete the course requirements for the certificate option of your choice.

#### Option A: Automotive Machining and Engine Repair

This Certificate of Achievement-Advanced prepares students for an entry-level position in the automotive repair industry in engine diagnostics.

Student Learning Outcomes - upon completion, students will be able to:

- demonstrate an application of four-stroke engine theory, basic safe machining practices, estimates and repair orders, and engine assembly.
- identify basic electrical circuits and diagnose automotive electrical circuit systems.
- apply the basic principles of physics as they work in the automotive industry.
- demonstrate knowledge of the job procurement process and hazardous materials/waste handling in the automotive industry.

1. Meet the requirements for this certificate level.
2. Complete the following.

AUTO 53A	Automotive Mechanisms	4
AUTO 53B	Automotive Electromechanical Systems	2
AUTO 57A	Career Research and Employment in the Automotive Industry	2
AUTO 94A	Principles of Four Stroke Cycle Gas and Diesel Engines	6
AUTO 94B	Automotive Machining and Engine Service	6
AUTO 94C	Automotive Machining and Engine Service	6
AUTO 94D	Automotive Machining and Engine Service	6
AUTO 94E	Automotive Machining and Engine Service	6
AUTO 94F	Automotive Machining and Engine Service	6
<b>Total Units Required .....</b>		<b>44</b>

**Option B: Automotive Engine Performance**

This Certificate of Achievement-Advanced prepares students for an entry-level position in the automotive repair industry.

*Student Learning Outcomes - upon completion, students will be able to:*

- diagnose basic electrical, engine performance, and emissions systems.
- identify basic electrical circuits and diagnose automotive electrical circuit systems.
- apply the basic principles of physics as they work in the automotive industry.

1. Meet the requirements for this certificate level.
2. Complete the following.

AUTO 53A	Automotive Mechanisms	4
AUTO 53B	Automotive Electromechanical Systems	2
AUTO 57A	Career Research and Employment in the Automotive Industry	2
AUTO 99A	Automotive Electricity, Battery and Cranking Systems	7
AUTO 99B	Automotive Charging, Ignition and Accessory Systems	7
AUTO 99C	Introduction to Engine Performance Systems	7
AUTO 99D	Intermediate Engine Performance Systems	7
AUTO 99E	Basic Engine Performance Diagnostic Procedures	7
AUTO 99F	Intermediate Engine Performance Diagnostic Procedures	7
<b>Total Units Required .....</b>		<b>50</b>

**Option C: Automotive Chassis and Powertrain**

This Certificate of Achievement-Advanced prepares students for an entry-level position in the automotive repair industry.

*Student Learning Outcomes - upon completion, students will be able to:*

- perform undercar inspections and repair suspension, steering, hydraulic, and active braking systems.
- demonstrate overall operation of an automotive transmission and differential as it relates to service, diagnosis, and repair.
- identify basic electrical circuits and diagnose automotive electrical circuit systems.
- apply the basic principles of physics as they work in the automotive industry.
- use written and oral communication skills to write repair orders and speak with customers.

1. Meet the requirements for this certificate level.
2. Complete the following.

AUTO 53A	Automotive Mechanisms	4
AUTO 53B	Automotive Electromechanical Systems	2
AUTO 57A	Career Research and Employment in the Automotive Industry	2
AUTO 91A	Automotive Brake Systems	6
AUTO 92A	Automotive Steering and Suspension	6
AUTO 92B	Automotive Alignment	6
AUTO 93A	Automotive Final Drive Train	6
AUTO 93B	Standard Transaxles	2
AUTO 93C	Automatic Transmissions	6
AUTO 93D	Automatic Transaxles	2
AUTO 93E	Diagnostic Techniques	1.5
AUTO 93F	Automotive Transmission Service	6
<b>Total Units Required .....</b>		<b>49.5</b>

**Automotive Technology**

**A.S. Degree (Options A - C)**

Refer to the corresponding description, student learning outcomes, and course requirements for the Certificate of Achievement-Advanced option of your choice.

1. Complete the Certificate of Achievement-Advanced requirements. 44-50
2. Meet the A.A./A.S. degree requirements.
3. Complete the following.

**Prerequisite:**

Approved Automotive Technology Course Sequence Contract. See department for an application.

<i>Major</i>	<i>Complete the Cert. of Achievement-Advanced requirements, Option A, B or C</i>	44-50
<i>GE</i>	<i>General Education (31-42 units)</i>	
<i>Electives</i>	<i>Elective courses required when major units plus GE units total is less than 90</i>	
<b>Total Units Required .....</b>		<b>90</b>

*Recommended*

One year of automotive educational experience (high school, ROP or De Anza's AUTO 50 series).