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Cupertino, CA 95014
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Automotive Technician

An evening, in-service program for practicing apprentices and technicians, auto enthusiasts, and students seeking to enter the automotive technician workforce

Academic Year
2014 - 2015

Department Head
Bldg. EI Rm. 14A
408-864-8840

Division Office
Kirsch Center Building
Room KC 228
408-864-8773

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

Career Services Info.
Student and Community
Services Bldg. 2nd Fl.
408-864-5400

- Machining and Engine Repair
- Engine Performance
- Automotive Chassis
- Automotive Powertrain
- Smog Technician
- Advanced Automotive Tech.

Certificate of Achievement Level 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 Level 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 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.

Automotive Machining and Engine Repair Technology

Certificate of Achievement

This certificate program prepares students for an entry-level engine diagnostics technician position in the automotive repair industry.

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

- demonstrate an understanding of four-stroke engine theory, basic safe machining practices, and engine assembly.

1. Meet the requirements for this certificate level.
 2. Complete the following.
- | | | |
|--------------------------------|--|----|
| AUTO 64 | Automotive Machining and Engine Repair | 9 |
| AUTO 64HP | High Performance Engine Preparation | 9 |
| Total Units Required | | 18 |

Automotive Machining and Engine Repair Technology

Certificate of Achievement-Advanced

A.S. Degree

This certificate and degree program prepares students with advanced skills for an entry-level position in automotive engine diagnostics.

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

- demonstrate an understanding of four-stroke engine theory, basic safe machining practices, estimates and repair orders, and engine assembly.
- identify the basic electrical circuits and diagnose automotive electrical systems.
- apply the basic principles of physics as they work in the automotive industry.

Certificate of Achievement-Advanced

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

AUTO 53A	Automotive Mechanisms	3
AUTO 60	Automotive Electrical Systems	9
AUTO 60A	Electrical Schematic Diagnosis	4.5
AUTO 60B	Automotive Electronics	4.5
AUTO 60C	Automotive Ignition, Fuel, and Emissions Systems	9
AUTO 64	Automotive Machining and Engine Repair	9
AUTO 64HP	High Performance Engine Preparation	9
Total Units Required		48

A.S. Degree

Meet the A.A./A.S. degree requirements.

Major	Complete the course requirements for the Cert. of Achievement-Advanced	48 units
GE	General Education (31-42 units)	
Electives	Elective courses required when major units plus GE units total is less than 90	
Total Units Required		90 units

Engine Performance

Basic Engine Performance Technology

Certificate of Achievement

This certificate prepares a student to be successful as an entry-level technician in vehicle electrical systems repairs.

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

- identify the basic electrical circuits and diagnose automotive electrical 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	3
AUTO 60	Automotive Electrical Systems	9
AUTO 60A	Electrical Schematic Diagnosis	4.5
AUTO 60B	Automotive Electronics	4.5
Total Units Required		21

Intermediate Engine Performance Technology

Certificate of Achievement

This certificate prepares a student to be successful as an entry-level technician in vehicle ignition, fuel, and ignition systems.

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

- interpret and analyze automotive ignition, fuel, and ignition systems.

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

AUTO 60C	Automotive Ignition, Fuel, and Emissions Systems	9
AUTO 60D	Ignition Analysis and Oscilloscope Diagnosis	4.5
AUTO 60E	Automotive Fuel Injection	4.5
Total Units Required		18

Advanced Engine Performance Technology

Certificate of Achievement

This certificate helps prepare students for an entry-level position in the automotive repair industry.

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

- utilize the appropriate diagnostic equipment, documentation, and troubleshoot principles on various automotive systems.

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

AUTO 60F	No-Start Diagnosis	4.5
AUTO 60G	Advanced Automotive Scan Tool Diagnosis	4.5
AUTO 60H	Advanced Driveability and Onboard Diagnosis	4.5
AUTO 60J	Advanced Lab Scope and Waveform Diagnosis	4.5
Total Units Required		18

Advanced Engine Performance Technology

Certificate of Achievement-Advanced

This certificate program prepares students with advanced skills for an entry-level position in the automotive repair industry utilizing appropriate diagnostic equipment, documentation, and troubleshooting principles on various automotive systems.

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

- identify the basic electrical circuits and diagnose automotive electrical systems.
- apply the basic principles of physics as they work in the automotive industry.
- interpret and analyze automotive ignition, fuel, and ignition systems.
- utilize appropriate diagnostic equipment, documentation, and troubleshooting principles on various automotive systems.

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

AUTO 53A	Automotive Mechanisms	3
AUTO 60	Automotive Electrical Systems	9
AUTO 60A	Electrical Schematic Diagnosis	4.5
AUTO 60B	Automotive Electronics	4.5
AUTO 60C	Automotive Ignition, Fuel, and Emissions Systems	9
AUTO 60D	Ignition Analysis and Oscilloscope Diagnosis	4.5
AUTO 60E	Automotive Fuel Injection	4.5
AUTO 60F	No-Start Diagnosis	4.5
AUTO 60G	Advanced Automotive Scan Tool Diagnosis	4.5
AUTO 60H	Advanced Driveability and Onboard Diagnosis	4.5
AUTO 60J	Advanced Lab Scope and Waveform Diagnosis	4.5
Total Units Required		57

Advanced Engine Performance Technology

A.S. Degree

This degree prepares students with advanced skills for an entry-level position in the automotive repair industry utilizing appropriate diagnostic equipment, documentation, and troubleshooting principles on various automotive systems.

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

- identify the basic electrical circuits and diagnose automotive electrical systems.
- apply the basic principles of physics as they work in the automotive industry.
- interpret and analyze automotive ignition, fuel, and ignition systems.
- utilize appropriate diagnostic equipment, documentation, and troubleshooting principles on various automotive systems.

Meet the A.A./A.S. degree requirements.

Major	Complete the course requirements for the Cert. of Achievement-Advanced	57 units
GE	General Education (31-42 units)	
Electives	Elective courses required when major units plus GE units total is less than 90	
Total Units Required		90 units

Automotive Chassis

Automotive Chassis Technology

Certificate of Achievement

This certificate prepares students for an entry-level position in automotive undercar inspection and repair procedures.

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

- perform undercar inspections and repair suspension, steering, hydraulic, and active braking systems.

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

AUTO 61A	Automotive Brake Systems	4.5
AUTO 61B	Electronically Controlled Brake Systems	4.5
AUTO 62A	Steering, Suspension and Alignment	9
Total Units Required		18

Automotive Chassis Technology

Certificate of Achievement-Advanced

This certificate program prepares students with advanced skills for an entry-level position in the automotive repair industry in undercar inspection and repair procedures.

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

- perform undercar inspections and repair suspension, hydraulic, and active braking systems.
- diagnose vehicle alignment concerns.
- identify the basic electrical circuits and diagnose automotive electrical 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	3
AUTO 60	Automotive Electrical Systems	9
AUTO 60A	Electrical Schematic Diagnosis	4.5
AUTO 60B	Automotive Electronics	4.5
AUTO 61A	Automotive Brake Systems	4.5
AUTO 61B	Electronically Controlled Brake Systems	4.5
AUTO 62A	Steering, Suspension and Alignment	9
AUTO 62B	Advanced Wheel Alignment	9
Total Units Required		48

Automotive Chassis Technology

A.S. Degree

This degree prepares students with advanced skills for an entry-level position in the automotive repair industry in undercar inspection and repair procedures.

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

- perform undercar inspections and repair suspension, hydraulic, and active braking systems.
- diagnose vehicle alignment concerns.
- identify the basic electrical circuits and diagnose automotive electrical systems.
- apply the basic principles of physics as they work in the automotive industry.

Meet the A.A./A.S. degree requirements.

Major	Complete the course requirements for the Cert. of Achievement-Advanced	48 units
GE	General Education (31-42 units)	
Electives	Elective courses required when major units plus GE units total is less than 90	
Total Units Required		90 units

Automotive Powertrain Technology

Certificate of Achievement

This certificate program helps prepare students for an entry-level position in the automotive repair industry in automotive transmission and differential.

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

- show an understanding of the overall operation of an automotive transmission and differential.

1. Meet the requirements for this certificate level.

2. Complete the following.

AUTO 63	Automotive Transmissions and Transaxles	9
AUTO 63A	Advanced Manual Drive Train	9
AUTO 63D	Transmission Diagnostic and Repair Techniques	4.5
Total Units Required		22.5

Automotive Powertrain Technology

Certificate of Achievement-Advanced

This certificate program prepares students with advanced skills for an entry-level position in automotive transmission and differential repair.

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

- demonstrate knowledge of the overall operation of an automotive transmission and differential.
- identify the basic electrical circuits and diagnose automotive electrical 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	3
AUTO 60	Automotive Electrical Systems	9
AUTO 60A	Electrical Schematic Diagnosis	4.5
AUTO 60B	Automotive Electronics	4.5
AUTO 63	Automotive Transmissions and Transaxles	9
AUTO 63A	Advanced Manual Drive Train	9
AUTO 63D	Transmission Diagnostic and Repair Techniques	4.5
Total Units Required		43.5

Automotive Powertrain Technology

A.S. Degree

This degree prepares students with advanced skills for an entry-level position in automotive transmission and differential repair.

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

- demonstrate knowledge of the overall operation of an automotive transmission and differential.
- identify the basic electrical circuits and diagnose automotive electrical systems.
- apply the basic principles of physics as they work in the automotive industry.

Meet the A.A./A.S. degree requirements.

Major	Complete the course requirements for the Cert. of Achievement-Advanced	43.5 units
GE	General Education (31-42 units)	
Electives	Elective courses required when major units plus GE units total is less than 90	
Total Units Required		90 units

Additional Certificates

Smog Technician

Certificate of Achievement

This certificate program prepares students for an entry-level position in the automotive repair industry performing California state smog inspections.

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

- perform a complete California state smog inspection.

1. Meet the requirements for this certificate level.

2. Complete the following.

AUTO 65P	Clean Air Car Course	7
AUTO 65W	Advanced Clean Air Car Course	2.5
AUTO 60C	Automotive Ignition, Fuel, & Emissions Systems	9
	Total Units Required	18.5