# **Automotive Department**

#### **DEGREES:**

Automotive Technician (AS)

#### **CERTIFICATES OF ACHIEVEMENT**

Automotive Automatic Transmissions and Transaxles

**Automotive Electrical and Body Systems** 

Automotive Maintenance and Light Repair

#### **COURSES:**

ATEC (Automotive Technology)

#### **CONTACT INFORMATION:**

School of Applied Technology and Business

Building: 500 Room 509

**Phone Number:** (707) 864-7229 **Fax Number:** (707) 864-7190

**Dean:** Lisa Neeley

Administrative Assistant: Jill Crompton

**Faculty Contact:** 

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P.A.C.E. - INDUSTRIAL AND APPLIED TECHNOLOGY - A PATHWAY FOR ACADEMIC AND CAREER EXCELLENCE AT SOLANO COMMUNITY COLLEGE

#### ARE YOU THE KIND OF PERSON WHO...

- ...desires to work hands-on with objects, machines, tools, plants, or animals?
- ...enjoys work and play outside, insluding use your physical or athletic abilities?
- ...likes to follow directions to organize, plan and complete a project or task?
- ...is interested in attaining employment as soon as possible?

#### **Automotive Technician**

Associate in Science

#### **Program Description**

The Automotive Technician program is designed to prepare graduates for entry level employment in the automotive industry as apprentice technicians, parts specialists, service consultants, or specialists in one of the many areas in the automotive service and repair industry.

The Associate in Science can be obtained upon completion of the 45-unit major, General Education, and electives as needed to complete a minimum of 60 units. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

#### **Program Outcomes**

Students who complete the Automotive Technician Associate in Science will be technically proficient in entry level skills as defined by the National Automotive Technician's Education Foundation (NATEF) by demonstrating:

- 1. Demonstrate the ability to properly service and repair automotive engines, automatic and manual transmissions and transaxles.
- 2. Demonstrate the ability to properly service and repair automotive brakes, steering and suspension systems.
- 3. Demonstrate the ability to properly service and repair automotive electrical, engine performance, HVAC and hybrid/alternative fuel vehicles.
- 4. Demonstrate effective workplace skills including oral and written communication and proper disposal and handling of hazardous waste materials

REQUIRED COURSES	.Units
ATEC 070 Automotive Fundamentals	3
ATEC 130 Automotive Suspension and Steering	4
ATEC 131 Automotive Electrical Systems	4
ATEC 132 Automotive Brake Systems	4
ATEC 133 Automotive Engine Repair	4
ATEC 134 Automatic Transmissions/Transaxles	۷
ATEC 135 Automotive Engine Performance	۷
ATEC 136 Automotive Manual Drivetrain and Axles	4
ATEC 137 Automotive Heating and Air Conditioning	g <sup>Z</sup>
ATEC 138 Automotive Electronics	4
ATEC 139 Advanced Engine Performance	4
ATEC 140 Hybrid Vehicle Maintenance and Repair	2
Required Major Total Units	

This is a Gainful Employment Program. For additional information, please visit <a href="http://www.solano.edu/gainful\_employment/">http://www.solano.edu/gainful\_employment/</a> and select "Automotive Technician."

### **Automotive Automatic Transmissions and Transaxles**

Certificate of Achievement

#### **Program Description**

This program is designed to prepare graduates for entry level employment in the automotive industry as an Automatic Transmission/Transaxle Service/Repair Technician.

The Certificate of Achievement can be obtained by completing the 17-unit major. All courses must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

#### **Program Outcomes**

Students who complete the Automatic Transmissions and Transaxles Certificate of Achievement will be able to:

- 1. Diagnose, remove, and repair automotive transmissions and transaxles
- 2. Utilize electrical diagnostic equipment and do hands-on testing with digital multi-meter
- 3. Safely work on and repair hybrid and alternative fuel vehicles

REQUIRED COURSES	Unit
ATEC 070 Automotive Fundamentals	3
ATEC 131 Automotive Electrical Systems	4
ATEC 134 Automatic Transmissions/Transaxles	4
ATEC 138 Automotive Electronics	4
ATEC 140 Hybrid Vehicle Maintenance and Repair	2
Total Units	17

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### **Automotive Electrical and Body Systems**

Certificate of Achievement

#### **Program Description**

This program is designed to prepare graduates for entry level employment in the automotive industry as an Automotive Electrical/Electronics Service/Repair Technician.

The Certificate of Achievement can be obtained by completing the 17-unit major. All courses must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

#### **Program Outcomes**

Students who complete the Automotive Electrical and Body Systems Certificate of Achievement will be able to:

- 1. Understand the theory of air conditioning and heating systems and how to properly repair automotive HVAC systems
- 2. Utilize electrical diagnostic equipment and do hands-on testing with digital multi-meter
- 3. Safely work on and repair hybrid and alternative fuel vehicles

REQUIRED COURSES	Units
ATEC 070 Automotive Fundamentals	3
ATEC 131 Automotive Electrical Systems	4
ATEC 137 Automotive Heating and Air Condition	ing 4
ATEC 138 Automotive Electronics	4
ATEC 140 Hybrid Vehicle Maintenance and Repair	ir 2
Total Units	17

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### **Automotive Maintenance and Light Repair**

Certificate of Achievement

#### **Program Description**

This program is designed to prepare graduates for entry level employment in the automotive industry as apprentice technicians, lube technician, express service technician or parts specialist.

The Certificate of Achievement can be obtained by completing the 17-unit automotive major. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a pass-no pass basis.

#### **Program Outcomes**

Students who complete the Automotive Maintenance and Light Repair Certificate Achievement will be able to:

- 1. Demonstrate proficiency in diagnosing and repairing automotive steering and suspension systems
- 2. Use electrical diagnostic equipment and do hands-on testing with a digital multi-meter
- 3. Proficiently diagnose, service, and repair automotive brake systems
- 4. Safely work on and repair hybrid and alternative fuel vehicles

REQUIRED COURSESUn	its
ATEC 070 Automotive Fundamentals	3
ATEC 130 Automotive Suspension and Steering	4
ATEC 131 Automotive Electrical Systems	4
ATEC 132 Automotive Brake Systems	4
ATEC 140 Hybrid Vehicle Maintenance and Repair .	2
Total Units	17

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