

# AUTOMOTIVE TECHNOLOGY – AUTOMOTIVE MANAGEMENT

Associate of Applied Science (AAS) Degree

102-107 credits

## DEGREE AS AWARDED ON TRANSCRIPT

Associate of Applied Science, Automotive Management or Associate of Applied Sciences in Automotive Technology in Electronics and Diagnostics (TED)

## PROGRAM DESCRIPTION

The Automotive Technology program emphasizes educating students as multi-skilled workers with the ability to complete a wide variety of tasks within the automotive technology service and repair setting. Coursework includes technical skills in computer applications, electrical, electronic, mechanical, hydraulic and network systems, both in theory as well as hands-on training. A self-paced method of instruction is offered for the entry-level courses. Communication skills are also highly emphasized throughout each program.

Both the AAS degree and certificate option enable students to enter the transportation industry as an automotive technician and/or middle management. Entry into the program at the beginning of each term is possible by meeting course prerequisites or receiving the instructor’s permission. The Automotive Technology program is certified by the National Automotive Technicians Education Foundation (NATEF). The program is approved for veterans’ training.

The following courses are required for COCC’s AAS in Automotive Technology degree. Students should work closely with an advisor if they wish to attend part time. Note that several of the courses qualify students to also earn short-term certificates in various automotive technology areas. See the Automotive Technology certificates on the following pages.

Students are expected to supply their own hand tools. A list is available from program instructors. Approximate cost of required tools and working clothes is \$1,700 to \$2,700. The College provides any needed specialized tools and equipment for use in courses.

It is recommended that the ASE (Automotive Service Excellence) certification test be taken as the student completes the program. Pretesting for ASE Certification and ASE Test Prep courses will be made available.

## COST OF PROGRAM

In addition to standard tuition, student fees and textbooks, students should anticipate the following estimated program costs:

- Program fee of \$15 per required automotive course or course fee of \$200 per automotive advanced course (AUT 260 and above)
- Materials (coveralls, safety glasses, work jacket, safety shoes, t-shirts): \$200
- ASE (Automotive Service Excellence) Certification – up to \$450 total for all eight areas of testing
- Cost of tools: \$1,500 to \$2,500 depending on the source

## Program Preparation and Prerequisites

In preparation for taking advanced program (AUT) courses:

- High school diploma or GED (recommended)
- Students completing the Automotive Technology program may have to pass criminal history checks (CHC) and/or drug test and hold a valid Oregon driver’s license as a condition of their employment.
- Students must take the following automotive basic skills courses (10 credits):

AUT 101	Basic Electricity for Automotive	2
AUT 106	Automotive Program Orientation	1
AUT 107	Mechanical Systems I	3
AUT 109	Mechanical Systems II	1
AUT 110	Small Gas Engines	3

## PROGRAM STANDARDS

All required courses must be completed at a “C” grade or better and graduates must have an overall 2.0 GPA or higher. Students who do not meet this standard may be dismissed from the program.

## REGISTRATION INFORMATION

Program (AUT) courses begin every term, including summer. Expect to start with 10 credits of basic skills courses in addition to a required math or writing course. Some AUT courses offered each term must be taken together and sequentially. Full-time students are discouraged from working more than 15 hours each week due to a heavy course load.

## NATIONAL/STATE LEGAL ELIGIBILITY OR UNIQUE REQUIREMENTS FOR LICENSURE AND/OR ENTRY INTO OCCUPATION, OR ADVANCEMENT IN THE OCCUPATION

The Automotive Technology program is certified by the National Automotive Technicians Education Foundation (NATEF). This certification requires that students complete 1,080 hours of training, which applies toward the two-year minimum experience requirement for ASE Certification. A minimum of 288 hours of Cooperative Work Experience (CWE) is included in the training (recommended preparation for CWE is 24 credits of automotive courses in addition to the basic skills courses).

## TRANSFER INFORMATION

This degree is designed for students planning to enter their chosen career upon graduation. Often only selected credits are considered transferrable to public or private baccalaureate institutions.

## PROGRAM REQUIREMENTS

### AUTOMOTIVE MANAGEMENT

#### YEAR ONE

##### Fall term

AUT 101	Basic Electricity for Automotive	2
AUT 106	Automotive Program Orientation	1
AUT 107	Mechanical Systems I	3
AUT 109	Mechanical Systems II	1
AUT 110	Small Gas Engines	3
Human Relations course from approved list		3-4
WR 121	Academic Composition	4

##### Winter term

AUT 102	Automotive Electric I	5
AUT 103	Automotive Electric II	2
AUT 105	Diesel Performance I	2
AUT 205	Engine Performance I	2
MTH 060	Algebra I	4
(or higher)		

##### Spring term

AUT 104	Automotive Electric III	2
AUT 111	Computerized Engine Controls	5
AUT 206	Engine Performance II	2
BA 101	Introduction to Business	4
CIS 120	Computer Concepts	0-4
or Computer Competency Test		

##### Summer term

AUT 204	Steering and Suspension	3
AUT 216A*	Co-op Work Experience-Automotive	4
or AUT 216B*		
AUT 253	Automotive Air Conditioning	3

\* Automotive CWE may be taken after 24 credits of automotive courses in addition to the basic skills courses, including summer. Students may not enroll in CWE without first being cleared by an instructor. Exceptions are based on individual student goals.

**AUTOMOTIVE TECHNOLOGY – AUTOMOTIVE MANAGEMENT** *(continued)*

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**YEAR TWO****Fall term**

AUT 201	Automotive Engines	4
AUT 208	Automotive Brakes	3
BA 111	Applied Accounting I	3
BA 206	Management Fundamentals I	4
HHP 252A	Fitness/First Aid	3

**Winter term**

AUT 202	Manual Drive Trains I	3
AUT 203	Manual Drive Trains II	3
AUT 251	Automatic Transmissions I	3
AUT 256	Automatic Transmissions II	2
BA 178	Customer Service	3

**Spring term**

AUT 112	Basic Engine Performance I	1
AUT 113	Basic Engine Performance II	1
AUT 114	Welding for Automotive Trade	3
BA 223	Marketing Principles I	4
BA 280	Co-op Work Experience Business	3
BA 286	Managing Business Processes	4
or BA 250	Entrepreneurship	

**AUTOMOTIVE TECHNOLOGY – ELECTRONICS AND DIAGNOSTICS – (OPTION)****98-102 credits**

Heavy emphasis will be placed on the following three areas: Hybrid Electric Vehicles (HEV) /Electric Vehicles (EV), clean diesel and on-board vehicle networking. The title places emphasis on the ever-advancing electronics that are contained on all current vehicles, clearly stating the intent of the degree. This degree is an addition to our current Master Automotive Technician Certificate and Automotive Engine Performance Certificate with emphasis on the electrical/electronic portions of the automotive industry.

**PROGRAM REQUIREMENTS****YEAR ONE****Fall term**

AUT 101	Basic Electricity for Automotive	2
AUT 106	Automotive Program Orientation	1
AUT 107	Mechanical Systems I	3
AUT 109	Mechanical Systems II	1
AUT 110	Small Gas Engines	3
MTH 060	Algebra I	4
(or higher)		

**Winter term**

AUT 102	Auto Electric I	5
AUT 103	Auto Electric II	2
AUT 104	Automotive Electric III	2
AUT 205	Engine Performance I	2
CIS 120	Computer Concepts	0-4
or Computer Competency Test		

**Spring term**

AUT 111	Computerized Engine Controls	5
AUT 206	Engine Performance II	2
CIS 131	Software Applications	4
WR 121	Academic Composition	4

**Summer term**

AUT 105	Diesel Performance I	2
AUT 216A*	Co-op Work Experience	4
or AUT 216B*		
AUT 253	Automotive Air Conditioning	3

**YEAR TWO****Fall term**

First year program prerequisites met		
AUT 260	Diesel Performance II	4
General Education Discipline Studies course		
GS 104	Physical Science: Physics	4
MFG 100	MATC Orientation (MATC – Redmond)	1
MFG 118	Fluid Power Systems I (MATC – Redmond)	2

**Winter term**

AUT 270	Automotive Controller Systems I	4
AUT 280	Hybrid Electric Vehicle I (HEV)	4
General Education Discipline Studies course		
Human Relations course		

**Spring term**

AUT 271	Automotive Controller Systems II	4
AUT 281	Hybrid Electric Vehicle II (HEV)	4
BA 178	Customer Service	3
General Education Discipline Studies course		
Health Class		
Recommend:		
HHP 243 or HHP252A		

**Summer term**

AUT 216A*	Dealership CWE/Clean Diesel/Hybrid	4
or AUT 216B*		

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