

Automotive Technology Program A.A.S. Degree

Automotive Technology Option

This program is designed to meet the continual demand for trained automotive technicians. The student participates in hands-on experiences in testing, diagnosing, and repairing automobiles. Emphasis in class and laboratory is placed on real-world, hands-on experience. Upon graduation, the student is fully qualified to work in an auto service center/dealership as an auto technician, and may lead to positions such as service advisor, service manager, parts counter person, and service writer. As an A.A.S. degree, this option is not designed for transfer to a four-year school, but many courses may prove to be transferable.

Graduates of this program will be able to:

- Demonstrate proficiency in the diagnosis of an automobile malfunction
- Demonstrate competency in the repair and service of an automobile
- Communicate effectively with customers and members of the automotive team
- Demonstrate professional accountability
- Continue professional growth

Requirements

General Education - 20 credits as described on page 51 of the Catalog.

Career Studies — 39 credits as follows:
(Credit hours listed with each course)

AUTO 101 Automotive Fundamentals 4

AUTO 111 Automotive Drivelines and 4
Transmissions

AUTO 123 Engine Performance I 4

AUTO 131 Automotive Steering, 4
Suspension and Alignment

AUTO 132 Automotive Brake Systems 4

AUTO 141 Automotive Electricity/ 4
Electronics I

AUTO 222 Engine Performance II 4

AUTO 226 Automotive Engines I 4

AUTO 241 Automotive Electricity/ 3
Electronics II

AUTO 243 Automotive Heating and 4
Air Conditioning

Career Studies — 4 credits from among
the following:

AUTO 213 Automatic and Manual 4

Transmission Overhaul

AUTO 227 Automotive Engines II 4

Suggested Sequence - Automotive Technology Program

A.A.S. Degree Automotive Technology Option

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites

and presumes a Fall Term start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Course Code Credits Course Code Credits

SEMESTER 1 SEMESTER 2

AUTO 101 4 AUTO 111 4

AUTO 131 4 AUTO 123 4

AUTO 141 4 AUTO 132 4

ENGL 121 3 Communications 3

15 General Education (1) 3

18

SEMESTER 3 SEMESTER 4

AUTO 222 4 AUTO 213 4

AUTO 226 4 AUTO 241 3

AUTO 243 4 Humanities 3

Mathematics or Science 3-4 Social Sciences 3

or Technological/Info Literacy General Education 3

15-16 16

Total Credits for Degree 64-65

(1) One course is recommended from the Cultural & Global Awareness knowledge area.

62 Programs of Study

Automotive

Technology

Program

A.A.S. Degree

Automotive

Engineering

Technician Option

The thrust of this option is toward employment in engineering laboratories and service industries. This option places greater emphasis on the scientific and mathematical concepts of the automobile design. Job titles include lab technician and automotive engineering assistant. As an A.A.S. degree, this option is not designed for transfer into a four-year

institution, although many courses may prove to be transferable.

Graduates of this program will be able to:

- Demonstrate proficiency in the diagnosis of an automobile malfunction
- Demonstrate competency in the repair and service of an automobile
- Demonstrate proficiency in advanced automotive electronic and computer systems
- Continue professional growth

Requirements

General Education - 20 credits as described on page 51 of the Catalog.

Career Studies - 40 credits as follows:
(Credit hours listed with each course)

AUTO 101 Automotive Fundamentals 4

AUTO 111 Automotive Drivelines and 4
Transmissions

AUTO 123 Engine Performance I 4

AUTO 131 Automotive Steering, 4
Suspension and Alignment

AUTO 132 Automotive Brake Systems 4

AUTO 141 Automotive Electricity/ 4
Electronics I

AUTO 222 Engine Performance II 4

AUTO 226 Automotive Engines I 4

MATH 162 Technical Mathematics II 4

PHYS 112 General Physics II (non-calculus) 4
Electives 3

The following course, while not required, is recommended for students choosing this program:

AUTO 241 Automotive Electricity/
Electronics II 3

Suggested Sequence - Automotive Technology Program

A.A.S. Degree Automotive Engineering Technician Option

The following sequence is an example of how this degree can be completed in two years.

This sequence is based on satisfaction of all Basic Skills requirements and prerequisites

and presumes a Fall Term start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other

options and to monitor your progress.

Course Code Credits Course Code Credits

SEMESTER 1 SEMESTER 2

AUTO 101 4 AUTO 111 4
AUTO 131 4 AUTO 123 4
AUTO 141 4 AUTO 132 4
ENGL 121 3 MATH 161 4
15 16
SEMESTER 3 SEMESTER 4
AUTO 222 4 AUTO 241 3
AUTO 226 4 PHYS 112 4
MATH 162 4 Humanities or Social Science 3
PHYS 111 4 Communications 3
16 General Education (1) 3
16

Total Credits for Degree 63

(1) One course is recommended from the Cultural & Global Awareness knowledge area.

Programs of Study 63

Automotive

Technology

Program

A.A.S. Degree

General Motors

Automotive Service

Educational Program

The GM-ASEP is a special program developed by Brookdale's Automotive Department in conjunction with General Motors Corporation to upgrade the competency and professional level of the incoming dealership technician. The two-year program will require the student to attend classes at Brookdale for a portion of each semester, and then work in a GM dealership for the remaining portion of the semester. This is a rigorous training program which requires certain testing and prerequisites prior to acceptance. For further information, please contact the Automotive Technology Department, ASEP Coordinator. The GM-ASEP program is certified by the National Automotive Technicians Education Foundation (NATEF).

Graduates of this program will be able to:

- Demonstrate proficiency in the diagnosis

of a General Motors automobile malfunction

- Demonstrate competency in the repair and service of the General Motors product
- Communicate effectively with customers and members of the automotive team
- Demonstrate professional accountability
- Continue professional growth

Requirements

General Education- 20 credits as described on page 51 of the Catalog.

Career Studies - 47 credits as follows:
(Credit hours listed with each course)

AUTO 106/GM Basic Automotive Systems/ 4
Air Conditioning

AUTO 111/GM Automotive Drivelines 4
and Transmissions

AUTO 123/GM Engine Performance I 4

AUTO 135/GM Steering, Suspension, 4
Alignment and Brakes

AUTO 141/GM Automotive Electricity/ 4
Electronics I

AUTO 213/GM Automatic and Manual 4
Transmission Overhaul

AUTO 222/GM Engine Performance II 4

AUTO 226/GM Automotive Engines I 4

AUTO 241/GM Automotive Electricity/ 3
Electronics II

AUTO 299/GM Dealership Internship 12

Suggested Sequence - Automotive Technology Program

A.A.S. Degree General Motors Automotive Service Educational Program

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites and presumes a Fall Term start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Course Code Credits Course Code Credits

SEMESTER 1 SEMESTER 2

AUTO 106 4 AUTO 123 4

AUTO 111 4 AUTO 135 4

AUTO 141 4 AUTO 299 3

Math or Science or 3-4 General Education (1) 3

Technological/Info Literacy ENGL 121 3

15-16 17

SUMMER

AUTO 299 3
SEMESTER 3 SEMESTER 4
AUTO 222 4 AUTO 213 4
AUTO 226 4 AUTO 241 3
AUTO 299 3 AUTO 299 3
General Education 3 Communications 3
Social Sciences 3 Humanities 3
17 16

Total Credits for Degree 68-69

(1) One course is recommended from the Cultural & Global Awareness knowledge area.

64 Programs of Study

Automotive

Technology

Program

A.A.S. Degree

Toyota Technical

Educational Network

(T-TEN)

The Toyota Technical Educational Network, T-TEN, is a two-year automotive technology program that has been developed by Brookdale, in conjunction with Toyota Motor Sales, Inc., to upgrade the competency and professional level of the incoming dealership technician.

The program is a two-year program with part of the training taking place at Brookdale and at a sponsoring Toyota dealership. Upon successful completion of the program, the student will receive an Associate in Applied Science (A.A.S.) Degree in Automotive Technology.

For further information, contact the Automotive Technology Department or the T-TEN coordinator. The Toyota T-TEN program is certified by the National Automotive Technicians Education Foundation (NATEF).

Graduates of this program will be able to:

- Demonstrate proficiency in the diagnosis of an automobile malfunction
- Demonstrate competency in the repair and service of the Toyota/Lexus product
- Communicate effectively with customers

and members of the automotive team

- Demonstrate professional accountability
- Continue professional growth

Requirements

General Education - 20 credits as described on page 51 of the Catalog.

Career Studies — 49 credits as follows:

(Credit hours listed with each course)

AUTO 101 Automotive Fundamentals 4

AUTO 111 Automotive Drivelines and 4
Transmissions

AUTO 123 Engine Performance I 4

AUTO 131 Automotive Steering, 4
Suspension and Alignment

AUTO 132 Automotive Brake Systems 4

AUTO 141 Automotive Electricity/ 4
Electronics I

AUTO 213 Automatic and Manual 4
Transmission Overhaul

AUTO 222 Engine Performance II 4

AUTO 241 Automotive Electricity/ 3
Electronics II

AUTO 226 Automotive Engines I 4

AUTO 243 Automotive Heating and 4
Air Conditioning

AUTO 299 Dealership Internship 6

Automotive Academic

Credit Certificates of

Achievement

These short training programs are designed to train students in a particular area of automotive specialization. Credits earned may later be applied toward the Automotive degree program.

Persons completing these are awarded Certificates of Achievement in the particular area of study.

Automotive Brakes, Steering, Suspension and Alignment Specialist

Academic Credit Certificate of Achievement

Requirements

Career Studies — 16 credits as follows:

(Credit hours listed with each course)

AUTO 101 Automotive Fundamentals 4

AUTO 131 Automotive Steering,

Suspension and Alignment 4
AUTO 132 Automotive Brake Systems 4
AUTO 295 Special Project -
Automotive Technology 4

Suggested Sequence - Automotive Technology Program

A.A.S. Degree

Toyota Technical Education Network (T-TEN)

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites

and presumes a Fall Term start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Course Code Credits Course Code Credits

SEMESTER 1 SEMESTER 2

AUTO 101 4 AUTO 111 4

AUTO 131 4 AUTO 141 4

AUTO 132 4 Communications 3

ENGL 121 3 Social Sciences 3

15 Humanities 3

17

SUMMER

AUTO 299 3

SEMESTER 3 SEMESTER 4

AUTO 123 4 AUTO 222 4

AUTO 213 4 AUTO 226 4

AUTO 243 4 AUTO 241 3

Math or Science or 3-4 General Education(1) 4-5

Technological/Info Literacy 15-16 15-16

SUMMER

AUTO 299 3

Total Credits for Degree 69

(1) One course is recommended from the Cultural & Global Awareness knowledge area.

Programs of Study 65

Automotive Electrical/

Power Systems Specialist

Academic Credit Certificate

of Achievement

Requirements

Career Studies – 23 credits as follows:

(Credit hours listed with each course)

AUTO 101 Automotive Fundamentals 4

AUTO 123 Engine Performance I 4

AUTO 141 Automotive Electricity/ 4

Electronics I

AUTO 241 Automotive Electricity/ 3
Electronics II

AUTO 243 Automatic Heating and 4
Air Conditioning

AUTO 295 Special Project - 4
Automotive Technology

**Automotive Transmission
Systems Specialist**

**Academic Credit Certificate
of Achievement**

Requirements

Career Studies — 20 credits as follows:
(Credit hours listed with each course)

AUTO 101 Automotive Fundamentals 4

AUTO 111 Automotive Drivelines and 4
Transmissions

AUTO 141 Automotive Electricity/ 4
Electronics I

AUTO 213 Automatic and Manual 4
Transmission Overhaul

AUTO 295 Special Project-Automotive 4
Technology

Automotive Engine

Performance Specialist

**Academic Credit Certificate
of Achievement**

Requirements

Career Studies — 24 credits as follows:
(Credit hours listed with each course)

AUTO 101 Automotive Fundamentals 4

AUTO 123 Engine Performance I 4

AUTO 141 Automotive Electricity/ 4
Electronics I

AUTO 222 Engine Performance II 4

AUTO 226 Automotive Engines I 4

AUTO 295 Special Project - 4
Automotive Technology

Automotive Engine

Remanufacturing

**Specialist Academic Credit
Certificate of Achievement**

Requirements

Career Studies — 20 credits as follows:
(Credit hours listed with each course)

AUTO 101 Automotive Fundamentals 4

AUTO 123 Engine Performance I 4

AUTO 226 Automotive Engines I 4

AUTO 227 Automotive Engines II 4

AUTO 295 Special Project - 4

Automotive Technology

Advanced Automotive

Technician Academic Credit

Certificate of Achievement

Requirements

Successful completion of basic automotive technician certificate plus courses listed below.

Career Studies — 19 credits as follows:

(Credit hours listed with each course)

AUTO 213 Automatic and Manual

Transmission Overhaul 4

AUTO 226 Automotive Engines I 4

AUTO 241 Automotive Electricity/ 3

Electronics II

AUTO 243 Automotive Heating and 4

Air Conditioning

AUTO 295 Special Project - 4

Automotive Technology

and Standards

66 Programs of Study