

TRANSPORTATION TECHNOLOGIES (AAS)

Catalog Effective Term: Fall 2024

Program Code: APOETT

Credential: Associate in Applied Science

High Demand Occupation, High Skill Occupation, High Wage Occupation

In this AAS degree, students have a choice to follow any of three different specialty tracks that will prepare them for employment in the transportation industry. This option can be selected if an associate's degree is required for employment or advancement in a field. Each track features a variety of application-level classes where students perform lab-oriented practice for the required skills in the automotive service related, EV service or auto body repair fields. Students will learn using the latest technology, methods and tooling in their area of concentration.

Students will select a specialized track in one of the following areas, each of which has its own associated certificated program(s): Auto Body, Auto Service, or Electric Vehicle Service & Repair. The program prepares the student for the State of Michigan Mechanics Certification tests as well as the National Institute for Automotive Service Excellence (ASE) Certification Exams. Meet with a divisional advisor or faculty.

Program Admission Requirements

- Academic Reading and Writing Levels of 6 are required.
- An Academic Math Level 3 is required.

Select a specialized track in one of the following areas, each of which has its own associated certificate program(s):

- Auto Service
- Auto Body
- Electric Vehicle Service & Repair

Full-Time Students

Auto Body Concentration (ABDY)

Minimum Credits Required for the Concentration or Option: 60

Course	Title	Credits
First Semester		
ABR 111	Introduction to Auto Body Repair	4
ABR 112	Introduction to Automotive Refinishing	4
ABR 114	Applied Auto Body Welding	2
ABR 119	The Art of Metal Shaping	2
Writing Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#writing)		3
Credits		15
Second Semester		
ABR 123	Technical Auto Body Repair	4
ABR 124	Technical Automotive Refinishing	4
ABR 140	Aluminum Welding for Automotive Applications	4
Math Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#math)		3
Credits		15

Third Semester

ASV 130	Automotive Maintenance	4
Nat. Sci. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#naturalsci)		3
Soc. Sci. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#socbehavsci)		3
APOETT Restricted Elective(s) (p. 3) (ABDY)		4
Credits		14

Fourth Semester

ABR 121	Automotive Estimating	2
ABR 201	Lightweighting Composite Repair	4
Arts/Human. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#arthuma)		3
Speech/Comp. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#writing)		3
APOETT Restricted Elective(s) (p. 3) (ABDY)		4
Credits		16
Total Credits		60

Auto Service Concentration (ASVC)

Minimum Credits Required for the Concentration or Option: 62

Course	Title	Credits
First Semester		
ABR 114	Applied Auto Body Welding	2
ASV 130	Automotive Maintenance	4
ASV 131	Automotive Electrical	4
Writing Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#writing)		3
Credits		13
Second Semester		
ABR 140	Aluminum Welding for Automotive Applications	4
ASV 132	Automotive Engines	4
ASV 133	Automotive Fuel Systems	4
ASV 254	Suspension and Steering	2
Math Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#math)		3
Credits		17
Third Semester		
ASV 134	Automotive Transmissions	4
ASV 251	Engine Diagnosis and Repair	2
ASV 256	Electrical and Electronic Systems	4
Soc. Sci. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#socbehavsci)		3
Speech/Comp. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#writing)		3
Credits		16
Fourth Semester		
ASV 255	Brakes	2
ASV 258	Engine Drivability	2
ASV 266	Advanced Transmissions	2
Arts/Human. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#arthuma)		3

Nat. Sci. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#naturalsci)	3
APOETT Restricted Elective(s) (p. 3) (ASVC)	4
Credits	16
Total Credits	62

Electric Vehicle Service & Repair Concentration (EVSF)

Minimum Credits Required for the Concentration or Option: 60

Course	Title	Credits
First Semester		
ASV 130	Automotive Maintenance	4
ASV 131	Automotive Electrical	4
ATT 180	Alternative Vehicle Fundamentals & Safety	2
Math Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#math)		3
Writing Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#writing)		3
Credits		16
Second Semester		
ABR 114	Applied Auto Body Welding	2
ASV 256	Electrical and Electronic Systems	4
ATT 280	Introduction to Electric Vehicles (EV)	4
Nat. Sci. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#naturalsci)		3
APOETT Restricted Elective(s) (p. 3) (EVSF)		2
Credits		15
Third Semester		
ASV 254	Suspension and Steering	2
ASV 257	Heating and Air Conditioning Systems	2
ATT 282	Electric Vehicle (EV) Energy Management	4
Arts/Human. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#arthuma)		3
Speech/Comp. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#writing)		3
Credits		14
Fourth Semester		
ASV 255	Brakes	2
ATT 284	Electric Vehicle (EV) Drivelines & Chassis	4
ATT 286	Electric Vehicle (EV) Dynamometer Testing	2
Soc. Sci. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#socbehavsci)		3
APOETT Restricted Elective(s) (p. 3) (EVSF)		4
Credits		15
Total Credits		60

Part-Time Students

Auto Body Concentration (ABDY)

Minimum Credits Required for the Concentration or Option: 60

Course	Title	Credits
First Semester		
ABR 111	Introduction to Auto Body Repair	4

ABR 112	Introduction to Automotive Refinishing	4
Credits		8

Second Semester

ABR 114	Applied Auto Body Welding	2
ABR 119	The Art of Metal Shaping	2
ABR 123	Technical Auto Body Repair	4

Credits **8**

Third Semester

Math Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#math)	3
Writing Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#writing)	3

Credits **6**

Fourth Semester

ABR 124	Technical Automotive Refinishing	4
APOETT Restricted Elective(s) (p. 3) (ABDY)		4

Credits **8**

Fifth Semester

ABR 121	Automotive Estimating	2
ABR 140	Aluminum Welding for Automotive Applications	4

Credits **6**

Sixth Semester

Soc. Sci. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#socbehavsci)	3
Speech/Comp. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#writing)	3

Credits **6**

Seventh Semester

ASV 130	Automotive Maintenance	4
APOETT Restricted Elective(s) (p. 3) (ABDY)		2

Credits **6**

Eighth Semester

ABR 201	Lightweighting Composite Repair	4
APOETT Restricted Elective(s) (p. 3) (ABDY)		2

Credits **6**

Ninth Semester

Arts/Human. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#arthuma)	3
Nat. Sci. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#naturalsci)	3

Credits **6**

Total Credits **60**

Auto Service Concentration (ASVC)

Minimum Credits Required for the Concentration or Option: 62

Course	Title	Credits
First Semester		
ASV 130	Automotive Maintenance	4
ASV 131	Automotive Electrical	4
Credits		8

Second Semester

ABR 114	Applied Auto Body Welding	2
ASV 132	Automotive Engines	4
Credits		6

Third Semester

Math Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#math)		3
Writing Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#writing)		3
Credits		6

Fourth Semester

ASV 133	Automotive Fuel Systems	4
ASV 134	Automotive Transmissions	4
Credits		8

Fifth Semester

ABR 140	Aluminum Welding for Automotive Applications	4
ASV 254	Suspension and Steering	2
ASV 266	Advanced Transmissions	2
Credits		8

Sixth Semester

Soc. Sci. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#socbehavsci)		3
Speech/Comp. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#writing)		3
Credits		6

Seventh Semester

ASV 251	Engine Diagnosis and Repair	2
ASV 255	Brakes	2
ASV 256	Electrical and Electronic Systems	4
Credits		8

Eighth Semester

ASV 258	Engine Drivability	2
APOETT Restricted Elective(s) (p. 3) (ASVC)		4
Credits		6

Ninth Semester

Arts/Human. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#arthuma)		3
Nat. Sci. Elective(s) (https://coursecatalog.wccnet.edu/academics/general-education/#naturalsci)		3
Credits		6

Total Credits 62

ABR 231	Project Management and Implementation in Auto Body	4
ASV 131	Automotive Electrical	4
MST 106	Introduction to Powder Coating	3
MST 130	Motorcycle Service Technology III	4

ASVC Restricted Electives

Code	Title	Credits
ABR 111	Introduction to Auto Body Repair	4
ASV 135	Facility Operations	3
ASV 174	ASV Co-op Education I	1-3
ASV 257	Heating and Air Conditioning Systems	2
ASV 266	Advanced Transmissions	2
ASV 274	ASV Co-op Education II	1-3
ASV 277	Automotive Powertrain Systems	4
ASV 279	Automotive Dynamometer and Test	4
CSS 200	Introduction to Network Security - Security +	4
CSS 205	Essentials of Network Penetration Testing	4
CSS 285	Essentials of Automotive Penetration Testing	4
CST 185	Local and Mobile Networking Essentials	4
MST 110	Motorcycle Service Technology I	4

EVSF Restricted Electives

Code	Title	Credits
ABR 111	Introduction to Auto Body Repair	4
ASV 135	Facility Operations	3
ASV 174	ASV Co-op Education I	1-3
ASV 257	Heating and Air Conditioning Systems	2
ASV 266	Advanced Transmissions	2
ASV 274	ASV Co-op Education II	1-3
ASV 277	Automotive Powertrain Systems	4
CSS 200	Introduction to Network Security - Security +	4
CSS 205	Essentials of Network Penetration Testing	4
CSS 285	Essentials of Automotive Penetration Testing	4
CST 185	Local and Mobile Networking Essentials	4

Electric Vehicle Service & Repair Concentration (EVSF)

Minimum Credits Required for the Concentration or Option: 60

Part-Time layout pending

ABDY Restricted Electives

Code	Title	Credits
ABR 116	The Evolution of the Automobile	2
ABR 130	Custom Painting	4
ABR 209	Advanced Metal Shaping	2