# 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 laboriented 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
5 ()(	Writing Elective(s) (https://coursecatalog.wccnet.edu/ academics/general-education/#writing)	
	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)		
	Credits	15

#### Third Semester

Total Credits		60
Credits		16
APOETT Restricted Elective(s) (p. 3) (ABDY)		4
academics/gen	eral-education/#writing)	
Speech/Comp.	Elective(s) (https://coursecatalog.wccnet.edu/	3
	ective(s) (https://coursecatalog.wccnet.edu/ eral-education/#arthuma)	3
ABR 201	Lightweighting Composite Repair	4
ABR 121	Automotive Estimating	2
Fourth Semeste	r	
	Credits	14
APOETT Restric	cted Elective(s) (p. 3) (ABDY)	4
	re(s) (https://coursecatalog.wccnet.edu/ eral-education/#socbehavsci)	3
	e(s) (https://coursecatalog.wccnet.edu/ eral-education/#naturalsci)	3
ASV 130	Automotive Maintenance	4

# Auto Service Concentration (ASVC)

Minimum Credits Required for the Concentration or Option: 62

Course	Title	Credits
First Semester		0
ABR 114	Applied Auto Body Welding	2
ASV 130	Automotive Maintenance	4
ASV 131	Automotive Electrical	4
Writing Elective(s) (h academics/general-e	ttps://coursecatalog.wccnet.edu/ ducation/#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) (http general-education/#n	os://coursecatalog.wccnet.edu/academics/ nath)	3
	Credits	17
Third Semester		
ASV 134	Automotive Transmissions	4
ASV 251	Engine Diagnosis and Repair	2
ASV 256	Electrical and Electronic Systems	4
	https://coursecatalog.wccnet.edu/ ducation/#socbehavsci)	3
Speech/Comp. Electi academics/general-e	ve(s) (https://coursecatalog.wccnet.edu/ ducation/#writing)	3
	Credits	16
Fourth Semester		
ASV 255	Brakes	2
ASV 258	Engine Drivability	2
ASV 266	Advanced Transmissions	2
Arts/Human. Elective academics/general-e	e(s) (https://coursecatalog.wccnet.edu/ ducation/#arthuma)	3

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

# **Electric Vehicle Service & Repair Concentration (EVSR)**

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) (http general-education/#r	os://coursecatalog.wccnet.edu/academics/ nath)	3
Writing Elective(s) (ht academics/general-e	ttps://coursecatalog.wccnet.edu/ ducation/#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
	https://coursecatalog.wccnet.edu/ ducation/#naturalsci)	3
APOETT Restricted E	lective(s) (p. 3) (EVSR)	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 academics/general-e	e(s) (https://coursecatalog.wccnet.edu/ ducation/#arthuma)	3
Speech/Comp. Electi academics/general-e	ve(s) (https://coursecatalog.wccnet.edu/ ducation/#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 E	lective(s) (p. 3) (EVSR)	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
	Introduction to Automotive Refinishing	-
	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/	3
general-educatior	n/#math)	
	) (https://coursecatalog.wccnet.edu/	3
academics/gener	al-education/#writing)	
	Credits	6
Fourth Semester		
ABR 124	Technical Automotive Refinishing	4
APOETT Restricte	ed Elective(s) (p. 3) (ABDY)	4
	Credits	8
Fifth Semester		
ABR 121	Automotive Estimating	2
ABB 140	Aluminum Welding for Automotive	4
ADN 140	Aluminum welding for Automotive	
	Applications	
ADN 140		6
Sixth Semester	Applications	6
Sixth Semester Soc. Sci. Elective	Applications Credits (s) (https://coursecatalog.wccnet.edu/	
Sixth Semester Soc. Sci. Elective academics/gener	Applications Credits (s) (https://coursecatalog.wccnet.edu/ ral-education/#socbehavsci)	3
Sixth Semester Soc. Sci. Elective academics/gener Speech/Comp. El	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/	3
Sixth Semester Soc. Sci. Elective academics/gener Speech/Comp. El	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing)	3
Sixth Semester Soc. Sci. Elective academics/gener Speech/Comp. El academics/gener	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing) Credits	3
Sixth Semester Soc. Sci. Elective academics/gener Speech/Comp. El academics/gener Seventh Semeste	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing) Credits r	3 3 <b>6</b>
Sixth Semester Soc. Sci. Electiver academics/gener Speech/Comp. El academics/gener Seventh Semeste ASV 130	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing) Credits r Automotive Maintenance	3 3 <b>6</b> 4
Sixth Semester Soc. Sci. Electiver academics/gener Speech/Comp. El academics/gener Seventh Semeste ASV 130	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing) Credits r Automotive Maintenance ed Elective(s) (p. 3) (ABDY)	3 3 <b>6</b> 4
Sixth Semester Soc. Sci. Electiver academics/gener Speech/Comp. El academics/gener Seventh Semeste ASV 130	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing) Credits r Automotive Maintenance	3 3 6 4 2
Sixth Semester Soc. Sci. Elective academics/gener Speech/Comp. El academics/gener Seventh Semeste ASV 130 APOETT Restricte	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing) Credits r Automotive Maintenance ed Elective(s) (p. 3) (ABDY)	3 3 6 4 2
Sixth Semester Soc. Sci. Elective academics/gener Speech/Comp. El academics/gener Seventh Semester ASV 130 APOETT Restricte Eighth Semester	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing) Credits r Automotive Maintenance ed Elective(s) (p. 3) (ABDY)	3 3 6 4 2 6
Sixth Semester Soc. Sci. Elective academics/gener Speech/Comp. El academics/gener Seventh Semester ASV 130 APOETT Restricte Eighth Semester ABR 201	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing) Credits r Automotive Maintenance ed Elective(s) (p. 3) (ABDY) Credits	3 3 6 4 2 6 6
Sixth Semester Soc. Sci. Elective academics/gener Speech/Comp. El academics/gener Seventh Semester ASV 130 APOETT Restricte Eighth Semester ABR 201	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing) Credits r Automotive Maintenance ed Elective(s) (p. 3) (ABDY) Credits Lightweighting Composite Repair	3 3 6 4 2 6 6 4 2 4 2
Sixth Semester Soc. Sci. Elective academics/gener Speech/Comp. El academics/gener Seventh Semester ASV 130 APOETT Restricte Eighth Semester ABR 201 APOETT Restricte	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing) Credits r Automotive Maintenance ed Elective(s) (p. 3) (ABDY) Credits Lightweighting Composite Repair ed Elective(s) (p. 3) (ABDY)	3 3 6 4 2 6 6 4 2 4 2
Sixth Semester Soc. Sci. Elective academics/gener Speech/Comp. El academics/gener Seventh Semester ASV 130 APOETT Restricte Eighth Semester ABR 201 APOETT Restricte Ninth Semester Arts/Human. Elec	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing) Credits r Automotive Maintenance ed Elective(s) (p. 3) (ABDY) Credits Lightweighting Composite Repair ed Elective(s) (p. 3) (ABDY)	3 3 6 6 4 4 2 2 6 6
Sixth Semester Soc. Sci. Elective academics/gener Speech/Comp. El academics/gener Seventh Semester ASV 130 APOETT Restricte Eighth Semester ABR 201 APOETT Restricte Ninth Semester Arts/Human. Elec academics/gener Nat. Sci. Elective(	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing) Credits r Automotive Maintenance ed Elective(s) (p. 3) (ABDY) Credits Lightweighting Composite Repair ed Elective(s) (p. 3) (ABDY) Credits ctive(s) (https://coursecatalog.wccnet.edu/	3 3 6 4 2 2 6 6 4 2 2 6 6 3 3
Sixth Semester Soc. Sci. Elective academics/gener Speech/Comp. El academics/gener Seventh Semester ASV 130 APOETT Restricte Eighth Semester ABR 201 APOETT Restricte Ninth Semester Arts/Human. Elec academics/gener Nat. Sci. Elective(	Applications Credits (s) (https://coursecatalog.wccnet.edu/ al-education/#socbehavsci) ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing) Credits r Automotive Maintenance ed Elective(s) (p. 3) (ABDY) Credits Lightweighting Composite Repair ed Elective(s) (p. 3) (ABDY) Credits ctive(s) (https://coursecatalog.wccnet.edu/ al-education/#arthuma) (s) (https://coursecatalog.wccnet.edu/	6 3 3 6 4 4 2 6 6 4 2 6 6 3 3 3 3 6 6

# 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

	Total Credits	62
	Credits	6
	s) (https://coursecatalog.wccnet.edu/ al-education/#naturalsci)	3
-	al-education/#arthuma)	
Arts/Human. Elec	tive(s) (https://coursecatalog.wccnet.edu/	3
Ninth Semester		
	Credits	6
	ed Elective(s) (p. 3) (ASVC)	4
ASV 258	Engine Drivability	2
Eighth Semester		Ū
	Credits	- 8
ASV 255 ASV 256	Electrical and Electronic Systems	4
ASV 255	Brakes	2
ASV 251	Engine Diagnosis and Repair	2
Seventh Semeste		U
academics/yeller	Credits	6
	ective(s) (https://coursecatalog.wccnet.edu/ al-education/#writing)	3
•	al-education/#socbehavsci)	
	s) (https://coursecatalog.wccnet.edu/	3
Sixth Semester		
	Credits	8
ASV 266	Advanced Transmissions	2
ASV 254	Suspension and Steering	2
	Applications	
ABR 140	Aluminum Welding for Automotive	4
Fifth Semester	orcano	
	Credits	8
ASV 134	Automotive Transmissions	4
ASV 133	Automotive Fuel Systems	4
Fourth Semester		
academics, gener	Credits	6
	) (https://coursecatalog.wccnet.edu/ al-education/#writing)	3
general-educatior	n/#math)	0
Math Elective(s) (	https://coursecatalog.wccnet.edu/academics/	3
Third Semester		-
	Credits	6
ASV 132	Automotive Engines	4
ABR 114	Applied Auto Body Welding	2

# ABR 231Project Management and Implementation<br/>in Auto Body4ASV 131Automotive Electrical4MST 106Introduction to Powder Coating3MST 130Motorcycle Service Technology III4

## **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

# **EVSR 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 (EVSR)**

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