Advanced Manufacturing

Powertrain Development Technician (APPDT) Associate in Applied Science Degree

Program Effective Term: Fall 2024

In this program, students will develop the knowledge and skills to perform in-car powertrain testing in unique testing environments. Jobs in this area require knowledge of automotive engine and electrical systems and experience with an automotive dynamometer. Students will learn about dynamometer setup and testing including the operation of complex analytical test equipment and test software.

First Semester	•	(13 credits)
ABR 114	Applied Auto Body Welding	2
ASV 130	Automotive Maintenance	4
ASV 131	Automotive Electrical	4
Elective	Writing Elective(s)	3
Second Semes	ter	(15 credits)
ABR 140	Aluminum Welding for Automotive Applications	4
ASV 132	Automotive Engines	4
ASV 256	Electrical and Electronic Systems	4
Elective	Math Elective(s)	3
Third Semeste	r	(16 credits)
ASV 277	Automotive Powertrain Systems	4
MST 220	Dynamometer Operations	4
Elective	Speech/Comp. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3
Elective	Restricted Electives: ABR 111, ASV 135, ASV 174, ASV 257, ASV 266, ASV 274, CSS 200, CSS 205, C	ST 2
	185, MST 110	
Fourth Semest		(17 credits)
ASV 279	Automotive Dynamometer and Test	4
MST 230	Advanced Motorcycle Fabrication	3
Elective	Nat. Sci. Elective(s)	3
Elective	Arts/Human. Elective(s)	3
Elective	Restricted Electives: ABR 111, ASV 135, ASV 174, ASV 257, ASV 266, ASV 274, CSS 200, CSS 205, C	ST 4
	185, MST 110	

Minimum Credits Required for the Program:

61

Notes:

Students may elect to take optional courses in Semester 5 to meet MTA. Please refer to the WCC MTA Transfer Agreement web page https://www.wccnet.edu/learn/transfer-wcc-credits/mta.php for more information.

PROGRAM CHANGE FORM

Program Code: APPDT	Current Program Name: F Development Technician	Powertrain	Effective Term	: Fall 2024
Division Code: ATP Department: TRPD				
 Directions: Attach the current program listing from the WCC catalog or website and indicate any changes to be made. Draw lines through any text that should be deleted and write in additions. Extensive narrative changes can be included on a separate sheet. Check the boxes below for each type of change being proposed. Changes to courses, discontinuing a course, or adding new courses as part of the proposed program change, must be approved separately using CurricUNET, but should be submitted at the same time as the program change form. If changes affect the program assessment plan or if program outcomes are updated, please submit a <u>Program Assessment Plan Change</u> form. These changes must be approved separately from the program change form and should be submitted at the same time. Current program assessment plans can be found on the <u>Curriculum and Assessment</u> 				
Program Information page.				
Remove course(s): MTH elective credit hour change Add course(s): MTH elective credit hour change Program outcomes (may also result from removing or adding a course)* Program title (new title is				
Financial/staffing/equipment	space implications:			
List departments that have b	een consulted regarding th	neir use of this pro	ogram.	
Signatures:				
Reviewer	Print Name	Signa		Date
Initiator	Rocky Roberts	- Tively /	Colert	1/11/24
Department Chair	Rocky Roberts	Porty / Party / Jimmie Bo	Cobes	1/11/24
Division Dean/Administrator	Jimmie Baber			1/11/24
	completed form to the Office of or by e-mail to curriculum.ass			
	the appropriate faculty committe	es we will secure the	signature of the VP	l
Reviewer	Print Name	Signa	ature	Date

PROGRAM CHANGE FORM

PROGRAM CHANGE FORM		01/10	
Curriculum Committee Chair	Randy Van Wagnen	The Vanh	2-5-24
Assessment Committee Chair	Jessica Hale	Male	2/8/24
Interim Vice President for Instruction	Brandon Tucker	Experience of the second	2/15/24
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Manufacturing & Automotive

Powertrain Development Technician (APPDT) Associate in Applied Science Degree

Program Effective Term: Fall 2022

In this program, students will develop the knowledge and skills to perform in-car powertrain testing in unique testing environments. Jobs in this area require knowledge of automotive engine and electrical systems and experience with an automotive dynamometer. Students will learn about dynamometer setup and testing including the operation of complex analytical test equipment and test software.

First Semester		(16 credits)
ABR 114	Applied Auto Body Welding	2
ASV 130	Automotive Maintenance	4
ASV 131	Automotive Electrical	4
Elective	Writing Elective(s)	3
Elective	Nat. Sci. Elective(s)	3
Second Semest	rer	(16 credits)
ABR 140	Aluminum Welding for Automotive Applications	4
ASV 132	Automotive Engines	4
ASV 256	Electrical and Electronic Systems	4
Elective	Math Elective(s)	4
Third Semester		(15 credits)
ASV 277	Automotive Powertrain Systems	4
MST 230	Advanced Motorcycle Fabrication	3
Elective	Restricted Electives: ABR 111, ASV 135, ASV 174, ASV 257, ASV 266, ASV 274, CSS 200, CSS 205, C 185, MST 110	ST 2
Elective	Speech/Comp. Elective(s)	3
Elective	Arts/Human. Elective(s)	3
Fourth Semeste	er	(15 credits)
ASV 279	Automotive Dynamometer and Test	4
MST 220	Dynamometer Operations	4
Elective	Restricted Electives: ABR 111, ASV 135, ASV 174, ASV 257, ASV 266, ASV 274, CSS 200, CSS 205, C 185, MST 110	ST 4
Elective	Soc. Sci. Elective(s)	3

Notes:

Students may elect to take optional courses in Semester 5 to meet MTA. Please refer to the WCC MTA Transfer Agreement web page https://www.wccnet.edu/learn/transfer-wcc-credits/mta.php for more information.

Minimum Credits Required for the Program:

62

PROGRAM CHANGE FORM

Program Code: APPDT	Current Program Name: F Development Technician	Powertrain	Effective Term: Fall 2022
Division Code: ATP	Department: Transportat	on Technologies	
 Draw lines through any text the on a separate sheet. Check the boxes below for expression of the presubmitted at the same time as the same time time time. 	ach type of change being proposi oposed program change, must be s the program change form. n assessment plan or if program o m. These changes must be appro me time. Current program asses	n additions. Extensive ed. Changes to cours e approved separatel outcomes are update oved separately from	e narrative changes can be included ses, discontinuing a course, or adding y using CurricUNET, but should be d, please submit a <u>Program</u> the program change form and
Assessment Program Informa Requested Changes:	ation page,		
X Remove course(s): See a X Add course(s): See attach Program title (new title is Description Advisors Program admission require Continuing eligibility require Show all changes on the cata * Please submit a Program Ass	ements ements N log page you attach.	removing or add Program asso Accreditation Other tote: A change to the of a new program program inactivation	essment plan* information
concentration applicable course	anges: to: Course contact hours, Cours e(s), Reviewed and refined the re y to completion based on frequen	stricted elective cour	se list(s) per concentration and
Financial/staffing/equipme	nt/space implications:		
List departments that have All departments that are affect	been consulted regarding to cted have been consulted.	heir use of this pr	ogram.
Signatures:			
Reviewer	Print Name	Signa	ature Date
Initiator	Acrian DAV	Count	
Department Chair	Rocky Roberts/Mike Duff	Rocky Robert	12/6/21
Division Dean/Administrator	J.BORIN MAKEY	2 ~	12/9/2021
	or by e-mail to curriculum.as opropriate faculty committees we	sessment@wccnet.	edu

Reviewer

Print Name

Signature

Date

PROGRAM CHANGE FORM

Curriculum Committee Chair	Randy Van Wagnen	R Vanh	2-7-22
Assessment Committee Chair	SHANDERN	Rie	3.11.32
Vice President for Instruction	Kimberly Hurns	1	2/10/22
Do not write in shad	ed area. Entered in: Banner	C&A Database Log File	

Reviewed by C&A Committees 1/27/22

Manufacturing & Automotive

Powertrain Development Technician (APPDT) Associate in Applied Science Degree

Program Effective Term: Fall 2020

In this program, students will develop the knowledge and skills to perform in-car powertrain testing in unique testing environments. Jobs in this area require knowledge of automotive engine and electrical systems and experience with an automotive dynamometer. Students will learn about dynamometer setup and testing including the operation of complex analytical test equipment and test software.

First Semest	er (15 c)	redits)
ASV 131	Automotive Electrical	4
ASV 132	Automotive Engines	4
MTT 102	Machining for the Technologies	2
	Restricted Electives select a minimum of 2 credits: ABR 114 or WAF 105	2
Elective	Writing Elective(s)	3
Second Sem	ester (14 c	redits)
ASV 256	Electrical and Electronic Systems	4
	Restricted Electives select a minimum of 2 credits: ABR 140* or WAF 103	2
	Restricted Electives select a minimum of 2 credits: ABR 111, ABR 140*, ASV 174, ASV 251*, ASV 258*, ASV 270, MEC 120, or MST 110	2
Elective	Speech/Comp. Elective(s)	3
Elective	Nat. Sci. Elective(s)	3
Third Semes	ter (17 c	redits)
ASV 277	Automotive Powertrain Systems	4
ASV 279	Automotive Dynamometer and Test	4
MST 230	Advanced Motorcycle Fabrication	3
	Restricted Electives select a minimum of 2 credits: ASV 251* or ASV 258*	2
Elective	Math Elective(s)	4
Fourth Semi	ester (14 c	redits)
CST 185	Local and Mobile Networking Essentials	- 4
MST 220	Dynamometer Operations	4
Elective	Arts/Human. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3
	edits Required for the Program:	60

Notes:

*Course may only be used to satisfy one Restricted Elective requirement.

^{**}Students may elect to take optional courses in Semester 5 to meet MTA. Please refer to the WCC MTA Transfer Agreement web page http://www.wccnet.edu/services/transferresources/mta/ for more information.

WASHTENAW COMMUNITY COLLEGE PROGRAM CHANGE OR DISCONTINUATION FORM

PROGRAM	I CHANGE OR	DISCONTINUATION FOR	KIVI		
Program Code:	Program Nam	e:	Effe	ective Term:	
APPDT	Powertrain De	velopment Technician	Fall	1 2020	
Division Code:	Department:				
ATP	Transportation	n Technologies			
Directions:					
		ting from the WCC catalo			
be included on	a separate she				
3. Check the box	es below for ea	ch type of change being	proposed. Changes	to courses, disco	ontinuing a
using a Master	ng new courses Syllabus form.	s as part of the proposed but should be submitted	at the same time as t	st be approved s he program char	nge form.
Requested Cha					
Requested Cha	nges.				
☐ Review		10-	□ Program admissi□ Continuing eligibi		
X Remove cours			☐ Program outcome	•	,
Add course(s)	: ABR 140' . W.	4F 103 MST 230			
☐ Program title (title was		☐ Accreditation info☐ Discontinuation (a		discontinuation
□ Description			plan that includes		
☐ Type of award	Miki tee		timetable for pha		
☐ Articulation inf			☐ Other		
		d was from the catalon			
Snow all changes	s on the attache	d page from the catalog.			
Rationale for pr	oposed chang	es or discontinuation:			
MEC 101 and WA	(F 109 are being	removed. MEC 101 is being MST 230 is being added as	g removed from a restric s a required course. This	ted electives list. ' s change is being	made to insure
that all students v	vill gain experiend	ce with transportation mate	ials processing. In addi	tion MST 230 add	s transportation
technology specif	ic fabrication, wh	ich has been repeatedly re	quested by employers.		
The frequency of	each course offer	ing, the time(s) of day each	semester, and the align	nment of content w	vith expressed
employer's skill s	ets were conside	red.			
	ng/equipment/s	space implications:			
None					
Į.					
List departmen	ts that have be	en consulted regarding	their use of this pro	ogram.	
Automotive Body	Department (Now	 Transportation Technology rial Technology Department 	/), Motorcycle Technolog . Welding and Fabrication	gy Department (No on Department	DW .
		ia. Toomiology Doparation	,		
Signature Revie		Print Name	/) Signat	ture	Date
ı Kevie	WEI	I FILL INGILIE	/ / Jigila	LUIG) Jaco

http://www.wccni	at adui/danarta	aante/curriculum
nttn://www.wcccn	er.eau/aeuar m	nents/curriculum

Initiator

Department Chair

Allen Day

Allen Day

Division Dean/Administrator	Brandon Tucker	7/4	5	12/12/10
Please submit cor	mpleted form to the Off	ice of Curriculum and Ass	sessment (SC 2	57).
Office reviewed by the appr		es we will secure the signatu	ire of the VPI and	
Vice President for Instruction	Kimberly Hurns	Town	11/	2/3/2020
President	Rose B. Bellanca		· ·	1 1 1 2
Do not write in shaded area	. Entered in: Banner_	C&A Database 2-14-20	Log File 2-/4-20	Board Approval
			8	

Reviewed by C & A Committees
1/23/20

First Semester		
ASV 131	Automotive Electrical	4
ASV 132	Automotive Engines	4
MTT 102	Machining for the Technologies	2
Restricted Electives select 2 credits: ABR 114 or WAF 105		2
WAF 109	Welding Safety and OSHA Regulations	2
Elective(s)	Writing/Composition	3
Total	15	
Second Semester		
ASV 256	Electrical and Electronic Systems	4
Restricted Electives select a minimum of 2 credits: ABR 140 or WAF 103		2
WAF 105	Introduction to Welding Processes	2
Elective(s)	Writing/Composition or Communication	3
Elective(s)	Natural Sciences	3
Restricted Electives select a minumum of 2 credits: ABR 111, ASV 174, ASV 251, ASV 258, ASV 270, MEC 120, MST 110, ABR 140		2
Restricted Electives select a minumum of 4 credits: ABR 111, ASV 174,		_
ASV 251, ASV 258, ASV 270, MEC 101, MEC 120, MST 110, WAF 125		4
Total	14	
Third Semester		
MST 230	Advanced Motorcycle Fabrication	3
ABR 114	Applied Auto Body Welding	2
ASV 277	Automotive Powertrain Systems	4
ASV 279	Automotive Dynamometer and Test	4
Elective(s)	Math	4
Elective(s)	Math	3
Restricted Electives select a minimum of 2 credits: ASV 251 or ASV 258		2
Total	17	
Fourth Semester		
CST 185	Local and Mobile Networking Essentials	4
MST 220	Dynamometer Operations	4
Elective(s)	Arts and Humanities	3
Elective(s)	Social and Behavioral Science	3
Total	14	
Total Credits Required		60
Footnotes		
*Students may elect to take optional courses in Semester 5 to meet MTA. Please refer to the WCC MTA Transfer Agreement web page www.wccnet.edu/services/transferresources/mta/ for more information.		

Manufacturing & Automotive

Powertrain Development Technician (APPDT) Associate in Applied Science Degree

Program Effective Term:

Fall 2019

In this program, students will develop the knowledge and skills to perform in-car powertrain testing in unique testing environments. Jobs in this area require knowledge of automotive engine and electrical systems and experience with an automotive dynamometer. Students will learn about dynamometer setup and testing including the operation of complex analytical test equipment and test software.

First Semes	certain and regions. The construction of the c	(15 credits)
ASV 131	Automotive Electrical	4
ASV 132	Automotive Engines	4
MTT 102	Machining for the Technologies	2 2
WAF 109	Welding Safety and OSHA Regulations	
Elective	Writing Elective(s)	3
Second Sem	ester	(16 credits)
ASV 256	Electrical and Electronic Systems	4
WAF 105	Introduction to Welding Processes	2
Elective	Speech/Comp. Elective(s)	3
Elective	Nat. Sci. Elective(s)	3
Elective	Restricted Electives select a minumum of 4 credits: ABR 111, ASV 174, ASV 251, ASV 258, ASV 270, 101, MEC 120, MST 110, WAF 125	MEC 4
Third Semes	ter .	(15 credits)
ABR 114	Applied Auto Body Welding	2
ASV 277	Automotive Powertrain Systems	4
ASV 279	Automotive Dynamometer and Test	4
Elective	Math Elective(s)	3
Elective	Restricted Electives select a minimum of 2 credits: ASV 251 or ASV 258	2
Fourth Sem	ester 3 18 2 1 1 2 1 2 1 2 1 2 1 2 1 1 1 1 1 1	(14 credits)
CST 185	Local and Mobile Networking Essentials	4
MST 220	Dynamometer Operations	4
Elective	Arts/Human. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3
Minimum Cr	redits Required for the Program:	60

Notes:

^{*}Students may elect to take optional courses in Semester 5 to meet MTA. Please refer to the WCC MTA Transfer Agreement web page http://www.wccnet.edu/services/transferresources/mta/ for more information.

Program Chang	Program Change or Discontinuation Form			
Program Code:	Program Name:		Effective Term:	
APPDT	Powertrain Development Technicia	n	Fall 2019	
Division Code:	Department:			
ATP Automotive Service Department				
Directions:				
	ram listing from the WCC catalog or We	b site and indicate any change	es to be made.	
1 9	text that should be deleted and write in a	- 0		
	for each type of change being proposed.			
1 -	he proposed program change, must be ap the same time as the program change for		aster Syllabus form, but	
	the same time as the program change for	111.		
Requested Changes:				
□Review		□Program admission requ	irements	
X Add course(s): WAF 10 As restricted electives: AS	V 174, ASV 251, ASV 258, ASV 270, C 101, MTT 102, WAF 125	` .		
☐Articulation information	ttached page from the catalog.			
ASV 135, WAF 200, WAF 19 Program goals and employer WAF 109, a new course has	changes or discontinuation: 06 are being removed. Those courses are being alignment were better improved with the adsafety content from ASV135, and is a prerequicollaboration with the Computer Instruction the target career path.	dition of the new course and the uisite for other restricted elective	e updated restricted electives. e WAF courses. CST 185 was	
were considered. Prerequisit	e offering, the time(s) of day each semester, a tes were also reviewed, and the courses were ir of each department was consulted to consi	chosen to limit registration restr	rictions that always require	
Financial/staffing/equi	pment/space implications:			

List departments that have been consulted regarding their use of this program.

Automotive Body Department, Motorcycle Technology Department, Industrial Technology Department, Computer Instruction Department, Welding and Fabrication Department

Signatures:	Print Name	Kin veay	4/11/19
Reviewer	Print Name	Signature	Date
Initiator	Arrian Day	alleins	11/19/2018
Department Chair	1692	Justin Morningstar	11/17/2018
Division Dean/Administrator	Brandon Tucker	PANET	11/21/18
Vice President for Instruction	KIMBERLY HURNS,	B. With	11/29/18
President	1 KOSO D D DILANK	Puits Bland	1/3/19
Do not write in shaded area.	Entered in: Banner C&A Data	base 4 2 9 Log File 4/12/19 Board App	roval
Please submit completed form to t	the Office of Curriculum and Asses	smeht (SC 257).	

WCC General Education Requirements Effective Fall 2018

Associate degree programs were updated to meet the revised WCC general education requirements below.

Course Distribution Requirements

Associate degree students must complete courses from each of six General Education content areas. The requirements vary, depending on which degree is being earned. The number of general education credit hours required for each degree is as follows.

	AA	AS	AAS
Writing/Composition	3-4 credits	3-4 credits	3-4 credits
2nd Writing/Composition or Communication	3-4 credits	3 credits	3 credits
Mathematics	3-4 credits	3-4 credits	3-4 credits
Natural Sciences ¹	7-8 credits	7-8 credits	3-4 credits
Social & Behavioral Science ²	6 credits	6 credits	3 credits
Arts and Humanities ³	6 credits	6 credits	3 credits
General Education Electives to reach 30 credits	0-2 credits	0-2 credits	N/A
Minimum	30 credits	30 credits	18 credits

¹ Two courses in Natural Science including one with laboratory experience (from two disciplines)

² From two disciplines

³ From two disciplines

Powertrain Development Technician (APPDT) Associate in Applied Science Degree

Program Effective Term: Fall 2018

In this program, students will develop the knowledge and skills to perform in-car powertrain testing in unique testing environments. Jobs in this area require knowledge of automotive engine and electrical systems and experience with an automotive dynamometer. Students will learn about dynamometer setup and testing including the operation of complex analytical test equipment and test software.

Service Service Service		215 61 9
First Semester		(15 credits)
ASV 131	Automotive Electrical	4
ASV 132	Automotive Engines	4
MTT 102	Machining for the Technologies	2 2
WAF 105	Introduction to Welding Processes	2
Elective	Writing Elective(s)	3
Second Semes	ter as the same of	(14 credits)
ASV 256	Electrical and Electronic Systems	4
MEC 120	3D-Printing: Machine, Process and Innovation	4
WAF 106	Welding Print Reading	3
Elective	Nat. Sci. Elective(s)	3
Third Semeste		(15 credits)
ASV 277	Automotive Powertrain Systems	4
ASV 279	Automotive Dynamometer and Test	4
WAF 200	Layout Theory Welding	3
Elective	Math Elective(s)	3
	Elective(s) to reach a minimum 60 credits	1
Fourth Semest		(16 credits)
ASV 135	Facility Operations	3
MST 220	Dynamometer Operations	4
Elective	Arts/Human. Elective(s)	3
Elective	Soc. Sci. Elective(s)	3
Elective	Speech/Comp. Elective(s)	3
Minimum Cred	its Required for the Program:	60

Notes:

*Students may elect to take optional courses in Semester 5 to meet MTA. Please refer to the WCC MTA Transfer Agreement web page http://www.wccnet.edu/services/transferresources/mta/ for more information.

Washtenaw Community College General Education Revision AAS Program Change Form 2018-2019

Program Code:	1000	Program Name:
	APPDT	Yower train Level files
Division Code:	0	Department:
	ATP	HSV

This form is to be used only for General Education Revision Program Changes for Associate in Applied Science (AAS) programs. Any other program changes should be submitted separately using a standard Program Change Form. **Directions:**

- 1. Review each general education area under Requested Changes below and respond as needed.
- 2. Attach the semester program layout showing the current program listing from the WCC catalog.
 - a. Indicate any changes to be made on the semester layout.
 - b. Draw a line through any courses that should be removed on the semester layout.
 - c. Write in any courses that need to be added on the semester layout.
- 3. Submit this form and semester program layout to the Office of Curriculum and Assessment (SC 257).

Current General Education Requirements AAS		Revised General Education Requirements 2018-2019 AAS		
Writing	3-4 credits	English Composition	3 - 4 credits	
Speech	3 credits	2 nd Course in English Composition or one	3 - 4 credits	
Mathematics	3 - 4 credits	course in Communication	5 (5) 5 6 7 5	
Natural Sciences	3 - 4 credits	Mathematics	3 - 4 credits	
Social & Behavioral Sciences	3 credits	Natural Sciences	3 - 5 credits	
Arts & Humanities	3 credits	Social & Behavioral Sciences	3 credits	
Critical Thinking	0 credits	Arts & Humanities from	3 credits	
Computer & Information Literacy	3 credits	Total	18 credits	
Total	21-24 credits			

Please review each General Education Area in the chart below, and record the needed changes in the chart and on the attached semester program layout.

Genera	l Education Area
_	Composition – The requirement for one writing/English composition course remains the same. No swill be made unless specifically requested below. (Use Writing Elective or ENG 111)
Option	al Change: None
	rrse in English Composition or one course in Communication
option:	reviously required both a second composition/writing course and a communication course. Your
1.	Allow students to select any course that meets composition/writing or communication (recommended).
2.	
3.	Require students to take a specific communication course (identify course below and on semester layout).

	Optional Change:
1	Natural Sciences - The requirement for one natural science course remains the same. No changes will be made unless specifically requested below.
	Optional Change:
	Social & Behavioral Sciences — The requirement for one social and behavioral science course remains the same. No changes will be made unless specifically requested below.
	Optional Change: "WC
	Arts & Humanities – The requirement for one arts and humanities course remains the same. No changes will be made unless specifically requested below. (Note: A department can designate a COM course as a requirement here. The same course cannot be counted in two areas.)
	Optional Change: NC

Reviewer	Print Name	Signature	Date
Initiator	Auran Day	Denny	12/12/2017
Department Chair	Justin Moranester	ANIN	12/12/17
Division Dean/Administrator	Brandon Tweller	PA	12/2/17
Vice President for Instruction	E 37	In let	1/9/18

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School of Automotive and Motorcycle Technology

If you are looking for the best technical training in the automotive or motorcycle field, WCC's School of Automotive and Motorcycle Technology is the place for you. Whether your focus is finding employment as a technician, learning about performance equipment, or creating a custom look, our introductory and advanced certificate programs, as well as associate degrees, will enhance your personal and professional qualifications. These programs offer the perfect blend of classroom and hands-on education not available in many other educational settings.

Washtenaw Community College offers programs at several levels for students who want to begin new careers, or advance in their existing careers. The first level is the certificate, which can vary from nine to thirty-six credits, depending on the field. Certificates generally prepare students for entry-level jobs.

After completing a certificate, students can progress to the next level, the advanced certificate. The credit hours required for these programs also vary. This type of certificate provides a more specialized level of skill development, and often allows students to upgrade their positions at their places of employment.

The next level, an Associate in Applied Science, is available for some programs. For some career fields, it is possible to earn a certificate, advanced certificate (if one exists), and an Associate in Applied Science degree in the same field. In these cases, the credit hours from the certificate and advanced certificate can be applied to the credit hours needed for the Associate in Applied Science degree.

Alternatively, students can earn an AAS in Occupational Studies by completing a certificate, advanced certificate and General Education requirements.

Automotive Services

The automotive certificate prepares the student for work as an automotive services technician, diagnosing and repairing malfunctions in automobile systems.

Powertrain Development Technician (APPDT) Associate in Applied Science Degree

Program Effective Term: Fall 2015

In this program, students will develop the knowledge and skills to perform in-car powertrain testing in unique testing environments. Jobs in this area require knowledge of automotive engine and electrical systems and experience with an automotive dynamometer. Students will learn about dynamometer setup and testing including the operation of complex analytical test equipment and test software.

ASV 131 ASV 132 MTT 102 WAF 105 Elective	Automotive Electrical Automotive Engines Machining for Auto Applications Introduction to Welding Processes Writing Elective(s)	4 4 2 2 2 3-4
ASV 256 MEC 101 WAF 106 Elective Elective	Electrical and Electronic Systems 3D Modeling and Blueprint Reading Blueprint Reading for Welders Computer Lit. Elective(s) Nat. Sci. Elective(s)	4 2 3 3 4
ASV 277 ASV 279 WAF 200 Elective	Automotive Powertrain Systems Automotive Dynamometer and Test Layout Theory Welding Math Elective(s)	4 4 3 4
ASV 135 MST 220 Elective Elective Elective	Facility Operations Dynamometer Operations Arts/Human. Elective(s) Soc. Sci. Elective(s) Speech Elective(s)	3 4 3 3 3 3 6 2
Minimum Credi	its Required for the Program:	62

Notes:

^{*}Students may elect to take the following optional courses in Semester 5 to meet MTA:

⁻Arts and Humanities Elective (3 credits)

⁻Natural Science Elective (3-4 credits)

⁻Social Science Elective (3 credits)

PROGRAM PROPOSAL FORM

Preliminary Approval - Check here items in general terms.	when using this form for preliminary approval of a	program proposal, and respond to the	
	completing this form after the Vice President for Instal, complete information must be provided for each		
Program Name:	Powertrain Development Technician (AP)	ODT)	
Division and Department:	ATP/ AUTD		
Type of Award:	☐ AA ☐ AS ☒ AAS ☐ Cert. ☐ Adv. Cert. ☐ Post-Assoc. Cer	t. Cert. of Comp.	
Effective Term/Year:	Fall 2015		
Initiator:	Allen Day		
Program Features Program's purpose and its goals.	This program is being developed in coordina Equipment grant. In this program, students v	vill develop the knowledge and	
Criteria for entry into the program, along with projected enrollment figures.	skills to perform automotive powertrain testing in a unique testing environment. Jobs in this area require experience with an automotive dynamometer.		
Connection to other WCC programs, as well as accrediting agencies or professional organizations.	(APASRV) associate degree program to provide the background for testing and development of powertrains. While the APASRV program goes on to review all		
Special features of the program.	components of a car, this program focuses of systems. This program would require the purchase of	-	
Need for the program with evidence to support the stated need.	This program is developed in coordination of grant and as a result of round table discussi local employers, GM Powertrain, Detroit D who participated in the round table discussi the field of powertrain development technic engineering powertrain testing lab or an engineering lab setting up tests, running them us with interpretation of results.	ons with industry leaders. Three biesel and Thompson Automotive, ion, identified immediate openings in cian. Students would work in an gineering powertrain endurance ing a dynamometer and assisting	
Program Outcomes/Assessment	Outcomes	Assessment method	
State the knowledge to be gained, skills to be learned, and attitudes to be developed	1. Assemble dyno test cell to run engine and powertrain components.	1. Departmental Exam	
by students in the program.	2. Retrieve and analyze complex test	2. Departmental Exam	
Include assessment methods that will be used to determine the effectiveness of the program.	data. 3. Interpret test data and recommend corrective action.	3. Departmental Exam	

Done 4/25/15 mo

Mo logged 1/14/15 5;
Office of Curriculum & Assessment

Curriculum	Semester 1		15 - 16 Credits
	Writing Elective		3 - 4 cr
ist the courses in the program as they should	MTT 102	Machining for Auto Applicati	ions 2 cr
ppear in the catalog. List minimum credits equired. Include any notes that should	ASV 131	Automotive Electrical	4 cr
ppear below the course list.	ASV 132	Automotive Engines	4 cr
	WAF 105 ·	Introduction to Welding Proce	esses 2 cr
	Semester 2		15 Credits 1
	Computer Literacy		3 cr
	MEC 101 ·	Modeling and Blueprint Read	
	WAF 106	Blueprint Reading for Welder	
	ASV 256	Electrical and Electronic Syst	
	Natural Science Elective		4 cr
	Semester 3		15 Credits
	Math Elective		4 cr
	WAF 200	Layout/Fabrication for AMC	3 cr
	ASV 277	Automotive Powertrain Syste	ms 4 cr
	ASV 279 (Auto Dynamometer and Testi	
	Composton 4		16 credits
	Semester 4 Social Science Elective		3 cr
			3 cr
	Speech Elective Humanities Elective		3 cr
		Facility Operations	3 cr
	ASV 135 MST 220	Facility Operations Dynamometer Operations	4 cr
		(override)	
	Total Program Credits		62
	Semester 5 – Optional		9 – 10
	Courses to meet MTA		
	Social Science Elective		3 cr
	Humanities Elective		3 cr
	Physical Science		3-4 cr
	Elective		
	Total Decomon Credita		70 - 72
Budget	Total Program Credits		
_		START-UP COSTS	ONGOING COSTS
pecify program costs in the following reas, per academic year:	Faculty	\$.	Future FT Instructor
	Training/Travel	•	•
	Materials/Resources	•	\$600.00
	Facilities/Equipment	\$374,749.00*	\$2500.00
	Classified Faculty	\$374,749.00*	.5 FTE
	TOTALS:	ment grant funding* Funding overla	S TBD

Program Description for Catalog and Web site	In this program, students will develop the knowledge and skills to perform in-car powertrain testing in unique testing environments. Jobs in this area require knowledge of automotive engine and electrical systems and experience with an automotive dynamometer. Students will learn about dynamometer setup and testing including the operation of complex analytical test equipment and test software.
3	Accreditation/Licensure – ASE Tests
	Advisors - TBD Advisory Committee – In Development
	Admission requirements -
	Articulation agreements - TBD
	Continuing eligibility requirements -

Assessment plan:

Program outcomes to be assessed	Assessment tool	When assessment will take place	Courses/other populations	Number students to be assessed
Assemble dyno test cell to run engine and powertrain components.	Departmental Exam	Fall 2018	ASV 279	All students
Retrieve and analyze complex test data	Departmental Exam	Fall 2018	ASV 279	All students
Interpret test data and recommend corrective action.	Departmental Exam	Fall 2018	ASV 279	All students

Scoring and analysis plan:

1. Indicate how the above assessment(s) will be scored and evaluated (e.g. departmentally-developed rubric, external evaluation, other). Attach the rubric.

Departmentally-developed rubric and answer key

2. Indicate the standard of success to be used for this assessment.

75% of the students will score 70% or higher

3. Indicate who will score and analyze the data.

Departmental faculty will analyze the data.

REVIEWER	PRINT NAME	SIGNATURE	DATE
Department Chair/Area Director	Allen Day	aulas	1/14/2015
Dean	Brandon Tucker		1/14/5
Vice President for Instruction		10	
Approved for Development		1	1/22/1-
☐ Final Approval	William Abernethy	M O ST	49/3
President	Rose Bellanca	Bellaner	2/23//4
Board Approval			3/24/15