Advanced Manufacturing

Custom Auto Body Fabrication and Chassis Design (CVABFC)

Advanced Certificate

Program Effective Term: Fall 2025

High Demand Occupation High Wage Occupation

The Custom Auto Body Fabrication and Chassis Design certificate focuses on advanced body and paint techniques used to customize automobiles and turn them into "rolling showpieces." Students will expand on knowledge acquired in the Auto Body Repair program. Working in teams, students will build, complete and show a project vehicle. Students will learn advanced sheet metal fabrication and construction of a custom automobile chassis. Areas of study will include various types of building materials and their uses, measurement, pattern development, mechanical drawing, fastener selection, MIG and TIG welding and frame design and suspension types. Other topics such as candies, pearls, tri-stage paint jobs and the application of custom graphics will be discussed. Upon acquiring this advanced certificate, employment possibilities may include specialty shop technician, custom paint technician and metal fabricator/welder.

Major/Area Requirements		(16 credits)
ATT 260	Special Vehicle Prototyping	4
ATT 261	Pre-Production Chassis Design	4
ATT 262	Advanced Special Vehicle Prototyping	4
ATT 263	Advanced Pre-Production Chassis Design	4

Minimum Credits Required for the Program:

16

Transportation Technologies

Custom Auto Body Fabrication and Chassis Design (CVABFC)

Advanced Certificate

Program Effective Term: Fall 2025

High Demand Occupation High Wage Occupation

The Custom Auto Body Fabrication and Chassis Design certificate focuses on advanced body and paint techniques used to customize automobiles and turn them into "rolling showpieces." Students will expand on knowledge acquired in the Auto Body Repair program. Working in teams, students will build, complete and show a project vehicle. Students will learn advanced sheet metal fabrication and construction of a custom automobile chassis. Areas of study will include various types of building materials and their uses, measurement, pattern development, mechanical drawing, fastener selection, MIG and TIG welding and frame design and suspension types. Other topics such as candies, pearls, tri-stage paint jobs and the application of custom graphics will be discussed. Upon acquiring this advanced certificate, employment possibilities may include specialty shop technician, custom paint technician and metal fabricator/welder.

Major/Area Requirements		(16 credits)
ATT 260	Special Vehicle Prototyping	4
ATT 261	Pre-Production Chassis Design	4
ATT 262	Advanced Special Vehicle Prototyping	4
ATT 263	Advanced Pre-Production Chassis Design	4

Minimum Credits Required for the Program:

16

Custom Auto Body Fabrication and Chassis Design (Advanced Certificate)

Catalog Effective Term: Program Code: CVABFC Credential: Advanced Certificate High Demand Occupation, High Wage Occupation

The Custom Auto Body Fabrication and Chassis Design certificate focuses on advanced body and paint techniques used to customize automobiles and turn them into "rolling showpieces." Students will expand on knowledge acquired in the Auto Body Repair program. Working in teams, students will build, complete and show a project vehicle. Students will learn advanced sheet metal fabrication and construction of a custom automobile chassis. Areas of study will include various types of building materials and their uses, measurement, pattern development, mechanical drawing, fastener selection, MIG and TIG welding and frame design and suspension types. Other topics such as candies, pearls, tri-stage paint jobs and the application of custom graphics will be discussed. Upon acquiring this advanced certificate, employment possibilities may include specialty shop technician, custom paint technician and metal fabricator/welder.

Minimum Credits Required for the Program: 16

<u>ATT 260</u>	Special Vehicle Prototyping	4
<u>ATT 261</u>	Pre-Production Chassis Design	4
<u>ATT 262</u>	Advanced Special Vehicle Prototyping	4

Major/Area Requirements

<u>ATT 263</u>	Advanced Pre-Production Chassis Design	4
Total Credits		16

Program Information Report

Custom Auto Body Fabrication and Chassis Design (CVABFC) Advanced Certificate Program Effective Term: Fall 2014

High Demand Occupation High Wage Occupation

The Custom Auto Body Fabrication and Chassis Design certificate focuses on advanced body and paint techniques used to customize automobiles and turn them into "rolling showpieces." Students will expand on knowledge acquired in the Auto Body Repair program. Working in teams, students will build, complete and show a project vehicle. Students will learn advanced sheet metal fabrication and construction of a custom automobile chassis. Areas of study will include various types of building materials and their uses, measurement, pattern development, mechanical drawing, fastener selection, MIG and TIG welding and frame design and suspension types. Other topics such as candies, pearls, tri-stage paint jobs and the application of custom graphics will be discussed. Upon acquiring this advanced certificate, employment possibilities may include specialty shop technician, custom paint technician and metal fabricator/welder.

	Major/Area Rec	Ulrements	its)	
	CCC 210	Custom Auto Body Technician I	4	
	CCC 215	Custom Fabrication and Chassis Design I	4	
	CCC 250	Custom Auto Body Technician II	4	
	CCC 255	Custom Fabrication and Chassis Design II	4	
Minimum Credits Required for the Program: 16				

Minimum Credits Required for the Program:

PROGRAM CHANGE OR DISCONTINUATION FORM

• ,

Program Code: CVCABT CVABFC					
Division Code: ATP	Department: ABDD				
	ram listing from the WCC catalog or W		·		
a separate sheet.	text that should be deleted and write in	additions. Extensive narrativ	ve changes can be included on		
new courses as part of t	for each type of change being proposed he proposed program change, must be the same time as the program change for	approved separately using a M			
Requested Changes:	ann		19951		
Add course(s): _CCC	Review Program admission requirements Remove course(s): CCC 200, 220, 240 260 Add course(s): CCC 210, CCC 215, CCC 250, CCC 255 Program title (title was: Program outcomes Continuing eligibility requirements Accreditation information Description Discontinuation (attach program discontinuation of students and timetable for phasing out courses)				
Show all changes on the atta	ched page from the catalog.				
Rationale for proposed changes or discontinuation: Because of the length of the advanced certificate programs, student success and completion rates have been below expectations. With students unable to complete all courses because of limited offerings we are revising the program. We are combining material from both CCC programs and courses into one program with fewer credit hours required for the program.					
Financial/staffing/equi None	pment/space implications:				
List departments that have been consulted regarding their use of this program. Auto Body					
Signatures: Reviewer	Print Name	Signature	Date		
Initiator	Scott Malnar Scott Malnar	- Inder Mal	$\frac{2-q-13}{1}$		
Department Chair Division Dean/Administra		March	$(- G, \gamma U, I)$		
Vice President for Instructi		Roball	10-17-13		
Do not write in shaded area. Entered in: Banner C&A Database_10/24/13 Log File_10/2778 Board Approval Please submit completed form to the Office of Curriculum and Assessment and email an electronic copy to <u>sjohn@wccnet.edu</u> for posting on the website.					

be done logged 9/24/13 5/ Office of Curriculum & Assessment

Custom Auto Body Fabrication and Chassis Design

The Custom Auto Body Fabrication and Chassis Design certificate focuses on advanced body and paint techniques used to customize automobiles and turn them into "rolling showpieces." Students will expand on Knowledge acquired in the Auto Body Repair Program. Working in teams, students will build, complete and show a project vehicle. Students will learn advanced sheet metal fabrication and construction of a custom automobile chassis. Areas of study will include various types of building materials and their uses, measurement, pattern development, mechanical drawing, fastener selection, MIG and TIG welding and frame design and suspension types. Other topics such as candies, pearls, tristage paint jobs and the application of custom graphics will be discussed. Upon acquiring this advanced certificate, employment possibilities may include specialty shop technician, custom paint technician and metal fabricator/welder.

No Admission Requirements

PROGRAM PROPOSAL FORM

- Preliminary Approval Check here when using this form for preliminary approval of a program proposal, and respond to the items in general terms.
- **Final Approval** Check here when completing this form after the Vice President for Instruction has given preliminary approval to a program proposal. For final approval, complete information must be provided for each item.

Program Name:	Custom Auto Body Technician Program Code:		
Division and Department:	VCT /ABDD		
Type of Award:	□ AA □ AS □ AAS □ Cert. ⊠ Adv. Cert. □ Post-Assoc. Cert. □	Cert. of Comp.	
Effective Term/Year:	<u>W/08</u>	CIP Code:	
Initiator:	_Robert Lowing	47.0603	
Program FeaturesProgram's purpose and its goals.Criteria for entry into the program, along with projected enrollment figures.Connection to other WCC programs, as well as accrediting agencies or professional organizations.Special features of the program.	 To provide students with a choice in career paths within the Custom Car industry. The fields of Custom Auto Body Technician and Custom Fabrication and Chassis Design are unique career tracks. The division of these programs into separate tracks will bett prepare students for employment in their chosen field. Completion of the Auto Body Repair (CFCR) certificate with a B average. Enrollmen estimated at 10 in the first year. Accreditations include I-CAR, NATEF, and ASE. 		
Need Need for the program with evidence to support the stated need.	 4) The program provides a detailed insight into the industry. The existing Custom Cars and Concepts Certificate (CVCCC) is being split into two separate programs, Custom Auto Body Technician and Custom Fabrication and Chassis Design. This will prepare students for the specific type of employment the seek. The one-year enrollment increase in the Auto Body Repair discipline was 17% in 2006-07. The 5-Year change in enrollment (2002-2007) was +113.6%. 		
Program Outcomes/Assessment State the knowledge to be gained, skills to be learned, and attitudes to be developed by students in the program. Include assessment methods that will be used to determine the effectiveness of the program.	 <u>Outcomes</u> Create and demonstrate current paint schemes in custom vehicle applications. Identify and demonstrate knowledge of refinishing products used on custom vehicles. Demonstrate strong skill sets in body modification and fabrication. 	 <u>Assessment method</u> Student achievement record, and final exam Student achievement record, and final exam Student achievement record, and final exam 	

Please return completed form to the Office of Curriculum & Assessment and email an electronic copy to <u>sjohn@wccnet.edu</u> for posting on the website.

Curriculum	CCC 200 Custom Auto Body Technician I 4 credits		
List the courses in the program as they should appear in the catalog. List minimum credits required. Include any notes that should appear below the course list.	CCC 220Custom Auto Body Technician II4 creditsuld cCC 240Custom Auto Body Technician III4 creditsCCC 260Custom Auto Body Technician IV6 creditsTotal18 credits		
Budget		START-UP COSTS	ONGOING COSTS
Specify program costs in the following	Faculty	\$.	\$.
areas, per academic year:	Training/Travel	•	
	Materials/Resources	•	•
	Facilities/Equipment	•	•
Program already exists	Other	•	•
Program Description for Catalog and	TOTALS	\$ 0 . Custom Auto Body Techn	• • • •
	The custom auto body advanced certificate focuses on advanced body and paint techniques used to customize automobiles and turn them into "rolling showpieces". Working in teams, students will build, complete and show a project vehicle. Students will learn advanced sheet metal fabrication techniques and how to use the specialty tools needed to accomplish these tasks. Other topics such as candies, pearls, tri-stage paint jobs, and the application of custom graphics will be discussed. Upon acquiring this certificate, employment possibilities include specialty shop technician, custom paint technician, and collision repair technician.		
Program Information	Accreditation/Licensure - I Advisors – Gary Sobbry Advisory Committee – Alrea Admission requirements - Ia	dy in existence n order to enroll in this progra CR) certificate program with a	am, students must complete the grade of "B" or better in each
	Continuing eligibility requir	rements - None	

Assessment plan:

Program outcomes to be assessed	Assessment tool	When assessment will take place	Courses/other populations	Number students to be assessed
1. Create and demonstrate current paint schemes in custom vehicle applications.	1. Student achievement record, and final exam	W/08 & every 3 yrs	All sections	All students in all sections
2. Identify and demonstrate knowledge of refinishing products used on custom	2. Student achievement record, and final exam	W/08 & every 3 yrs	All sections	All students in all sections

Office of Curriculum & Assessment

vehicles				
3. Demonstrate strong skill sets in body modification and fabrication.	3. Student achievement record, and final exam	W/08 & every 3 yrs	All sections	All students in all sections

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.

The final exam will be scored against the answer sheet. Points will be assigned to each question with the results compared to the scoring guide. Practical application of the task will be evaluated using the Student Achievement Record. Each task is worth 5 points and will be evaluated by the instructor based on the rubric below:

5 points = Excellent work done with no flaws and without help from instructor, follows safety requirements

4 points = Above average work done with little to no flaws with some help from instructor. Follows all safety requirements

3 points = Average work done with few flaws and some help from instructor. Follows most safety requirements.

2 points = Either below average work or average work done with substantial help from instructor. Meets minimal safety requirements.

1 point = Failed to complete task or finished product not to code or student doesn't follow safety requirements.

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

The standard of success of student performance and retention will be: 80% of the students will score 85% or higher on final exam and student achievment record. (Final+ Achievment Record)/ 2 = 85% or higher).

3. Indicate who will score and analyze the data.

Department chair and instructors will blind-score the data. We will review to identify if there are areas of weakness or needed changes.

4. Explain how and when the assessment results will be used for program improvement.

Assessment and update the course content. Analysis will also be done to evaluate the type of instruction used and if we indentify areas of consistent weakness.

REVIEWER	PRINT NAME	SIGNATURE	DATE
Department Chair/Area Director	Gary Sobbry	(wan)) /	
Dean	Bruce Greene	Alenha	1/28/08
Vice President for Instruction Approved for Development		The Day	2/1/2
Final Approval		gen Milday.	5/11/00
President		Tably Uniterset	4/26/08
Board Approval			// /

Fr logged 1/31/08 si / Office of Curriculum & Assessment In local 3/19

Program Proposal Form 8-2005

Program Information Report

School of Automotive and Motorcycle Technology

Automotive Services

Custom Auto Body Technician (CVCABT) Advanced Certificate

Program Effective Term: Fall 2008

The Custom Auto Body Technician advanced certificate focuses on advanced body and paint techniques used to customize automobiles and turn them into "rolling showpieces." Working in teams, students will build, complete and show a project vehicle. Students will learn advanced sheet metal fabrication techniques and how to use the specialty tools needed to accomplish these tasks.

Other topics such as candies, pearls, tri-stage paint jobs, and the application of custom graphics will be discussed. Upon acquiring this advanced certificate, employment possibilities include specialty shop technician, custom paint technician, and collision repair technician.

Program Admission Requirements:

In order to enroll in this program, students must complete the Auto Body Repair (CTAUBR) certificate program with a grade of "B" or better in each course.

Minimum Credits Required for the Program:			
CCC 260	Custom Auto Body Technician IV	б	
CCC 240	Custom Auto Body Technician III	4	
CCC 220	Custom Auto Body Technician II	4	
CCC 200	Custom Auto Body Technician I	4	
Major/Are	a Requirements	(18 credits)	

PROGRAM PROPOSAL FORM

- Preliminary Approval Check here when using this form for preliminary approval of a program proposal, and respond to the items in general terms.
- **Final Approval** Check here when completing this form after the Vice President for Instruction has given preliminary approval to a program proposal. For final approval, complete information must be provided for each item.

Program Name: Division and Department:	Custom Fabrication & Chassis Design Program VCT Code:			
Type of Award:	□ AA □ AS □ AAS □ Cert. ⊠ Adv. Cert. □ Post-Assoc. Cert. □ Cert. of Comp.			
Effective Term/Year:	<u>W/08</u>	CIP Code:		
Initiator:	<u>Scott Malnar</u> 47.060			
 Program Features Program's purpose and its goals. Criteria for entry into the program, along with projected enrollment figures. Connection to other WCC programs, as well as accrediting agencies or professional organizations. Special features of the program. Need Need for the program with evidence to support the stated need. 	 fields of Custom Auto Body Technician and Care unique career tracks. The division of these prepare students for employment in their choses prepare students for employment in their choses estimated at 10 in the first year. 3) Accreditations include I-CAR, NATEF, and A 4) The program provides a detailed insight into t The existing Custom Cars and Concepts Certificate separate programs, Custom Auto Body Technician Design. This will prepare students for the specific year enrollment increase in the Auto Body Repair of Year change in enrollment (2002-2007) was +113.0 	 To provide students with a choice in career paths within the Custom Car industry. The fields of Custom Auto Body Technician and Custom Fabrication and Chassis Design are unique career tracks. The division of these programs into separate tracks will better prepare students for employment in their chosen field. Completion of the Auto Body Repair (CFCR) certificate with a B average. Enrollment estimated at 10 in the first year. Accreditations include I-CAR, NATEF, and ASE. 		
Program Outcomes/Assessment State the knowledge to be gained, skills to be learned, and attitudes to be developed by students in the program.	Outcomes 1. Use advanced custom tools and machinery in chassis building. 2. Utilize industry resources in the design of custom vehicles. 3. Perform metal shaping and fabrication skills in	Assessment method 1. Student achievement record and final exam 2. Student achievement record and final exam 3. Student achievement record and final		
Include assessment methods that will be used to determine the effectiveness of the program.	the creation of custom parts.4. Demonstrate TIG and MIG welding skills used in the building of custom vehicles.	exam 4. Student achievement record and final exam		

Please return completed form to the Office of Curriculum & Assessment and email an electronic copy to <u>sjohn@wccnet.edu</u> for posting on the website.

Curriculum		ion & Chassis Design I	4 credits
List the courses in the program as they shoul appear in the catalog. List minimum credits	WAF 215Welding V Advanced GTAW & GMAW4 creditsdCCC 221Custom Fabrication & Chassis Design II4 credits		
required. Include any notes that should appear below the course list.	CCC 241 Custom Fabrication & Chassis Design III 6 credits TOTAL 18 credits		
Budget		START-UP COSTS	ONGOING COSTS
Specify program costs in the following areas, per academic year:	Faculty	\$.	\$.
areas, per academic year.	Training/Travel	•	
	Materials/Resources	•	
	Facilities/Equipment	•	•
Already exists	Other	•	•
Program Description for Catalog and	TOTALS:	\$. 0	\$
Web site Program Information	The custom fabrication and in the Auto Body Repair pro- design, build, complete, and used in the construction of a various types of building ma- mechanical drawing, fastenee Modifications such as boxin construction will be explore design, and their construction students who acquire this ce shop technician, and race ter Accreditation/Licensure - I- Advisors – Gary Sobbry Advisory Committee – Alreace Admission requirements - Im	ogram. Students working in a show a project vehicle. Stud a custom automotive chassis. aterials and their uses, measure r selection, mig and tig weldi g, c-notching, motor mount d. Additional information of on will also be covered. Emp ertificate may include welder, am technician. CAR, NATEF, and ASE.	ands on knowledge acquired team environment will ents will learn techniques Areas of study will include rement, pattern development, ng, and frame design. design, and cross member n suspension types, their bloyment opportunities for metal fabricator, specialty
	Articulation agreements - None		
	Continuing eligibility require	ements - None	

Program outcomes to be assessed	Assessment tool	When assessment will take place	Courses/other populations	Number students to be assessed
1. Use advanced custom tools and machinery in chassis building.	1. Student achievement record and final exam	W/08 & every 3 yrs	All sections	All students in all sections
2. Utilize industry resources in the design of custom vehicles.	2. Student achievement record and final exam	W/08 & every 3 yrs	All sections	All students in all sections
3. Perform metal shaping and fabrication skills in the creation of custom parts.	3. Student achievement record and final exam	W/08 & every 3 yrs	All sections	All students in all sections
4. Demonstrate TIG and MIG welding skills used in the building of custom vehicles.	4. Student achievement record and final exam	W/08 & every 3 yrs	All sections	All students in all sections

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.

The final exam will be scored against the answer sheet. Points will be assigned to each question with the results compared to the scoring guide. Practical application of the task will be evaluated using the Student Achievement Record. Each task is worth 5 points and will be evaluated by the instructor based on the rubric below:

5 points = Excellent work done with no flaws and without help from instructor, follows safety requirements

4 points = Above average work done with little to no flaws with some help from instructor. Follows all safety requirements

3 points = Average work done with few flaws and some help from instructor. Follows most safety requirements.

2 points = Either below average work or average work done with substantial help from instructor. Meets minimal safety requirements.

1 point = Failed to complete task or finished product not to code or student does not follow safety requirements.

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

The standard of success of student performance and retention will be: 80% of the students will score 85% or higher on final exam and student achievment record. (Final +Achievment Record)/ 2 = 85% or higher).

3. Indicate who will score and analyze the data.

Department chair and instructors will blind-score the data. We will review to identify if there are areas of weakness or needed changes.

4. Explain how and when the assessment results will be used for program improvement.

Assessment and update the course content. Analysis will also be done to evaluate the type of instruction used and if we indentify areas of consistent weakness.

REVIEWER	PRINT NAME	GINATURE	DATE
Department Chair/Area Director	Gary Sobbry	(D) nc	
Dean	Bruce Greene	Leur	1-28-08
Vice President for Instruction Approved for Development Final Approval		lace M. Palay.	3/11/25
President	(They White out	4/28/08
Board Approval			

•

h 109ged 1/31/08 57 . Office of Curriculum & Assessment h 1042ged 3/19

Program Information Report

School of Automotive and Motorcycle Technology

Automotive Services

Custom Fabrication and Chassis Design (CVCFCD) Advanced Certificate

Auvanceu Certificate

Program Effective Term: Fall 2008

The Custom Fabrication and Chassis Design advanced certificate expands on knowledge acquired in the Auto Body Repair program. Students working in a team environment will design, build, complete, and show a project vehicle. Students will learn techniques used in the construction of a custom automotive chassis. Areas of study will include various types of building materials and their uses, measurement, pattern development, mechanical drawing, fastener selection, MIG and TIG welding, and frame design. Modifications such as boxing, c-notching, motor mount design, and cross member construction will be explored. Additional information on suspension types, their design, and their construction will also be covered. Employment opportunities for students who acquire this certificate may include welder, metal fabricator, specialty shop technician, and race team technician.

Program Admission Requirements:

In order to enroll in this program, students must complete the Auto Body Repair (CTAUBR) certificate with a grade of "B" or better in each course.

Major/Area F	Requirements	11S readites
CCC 201	Custom Fabrication and Chassis Design I	4
CCC 221	Custom Fabrication and Chassis Design II	4
CCC 241	Custom Fabrication and Chassis Design III	6
WAF 215	Welding V Advanced GTAW and GMAW	4

Minimum Credits Required for the Program: