Collision Repair Technology

Degrees: Diploma	Collision Repair Technician	56-59
Certificate	Automotive Painter Automotive Painter Helper Collision Repairer	38 14 50
	Collision Repair Helper	14

Description:

From repairing small dents to rebuilding the bodies of wrecked or damaged vehicles, this program maintains the current commercial standards. Students are taught the types of materials used in filler compounds, the colors and chemical make-up of paints used to refinish, welding and cutting procedures, design and installation of trim, cost estimating and preparation for finish work. All are skills applied in actual jobs performed in shop assignments.

Progression in the Collision Repair Technology program is contingent upon achievement of a grade of "C" or better in each course and maintenance of a 2.0 cumulative grade point average.

Implementation: Spring 2012

Competencies/Student Outcomes:

Collision Repair Technician (Diploma)

Competencies will be met at the level appropriate to the credential.

General Education Competencies:

- I. Communicate Effectively
 - 1. Read and listen with comprehension.
 - 2. Speak and write clearly using standard English.
 - 3. Interact cooperatively with others using both verbal and non-verbal means.
 - 4. Demonstrate information processing through basic computer skills.
- II. Think Critically
 - 1. Make connections in learning across the disciplines and draw logical conclusions.
 - 2. Demonstrate problem solving through interpreting, analyzing, summarizing, and/or integrating a variety of materials.
 - 3. Use mathematics to organize, analyze, and synthesize data to solve a problem.
- III. Learn Independently
 - 1. Use appropriate search strategies and resources to find, evaluate, and use information.
 - 2. Make choices based upon awareness of ethics and differing perspectives/ideas.
 - 3. Apply learning in academic, personal, and public situations.
 - 4. Think creatively to develop new ideas, processes, or products.
- IV. Examine Relationships in Diverse and Complex Environments
 - 1. Recognize the relationship of the individual to human heritage and culture.
 - Demonstrate an awareness of the relationship of the individual to the biological and physical environment.
 - 3. Develop an awareness of self as an individual member of a multicultural global community.

Technical Competencies:

Upon completion of the Collision Repair Technician Diploma program the student can:

- 1. Prepare and prime for painting auto panels.
- 2. Sand, grind, pull, rough and fill auto panels.
- 3. Understand and safely use tools associated with auto body repair.
- 4. Replace and align bolts on parts such as doors, hoods, and fenders.
- 5. Repair and replace weld-on panels.
- 6. Use lacquer, acrylic enamel and refinishing products.
- 7. Prepare auto surfaces for painting and use a paint spray gun safely.
- 8. Mix paints for auto use and solve paint application problems.

- 9. Repair plastic, fiberglass, and flexible automobile parts.
- 10. Analyze, repair, and replace structural panels on unibody automobiles.
- 11. Align the frame on unibody and frame cars.
- 12. Replace modular glass on cars.
- 13. Weld structural components on automobiles.
- 14. Restore corrosion protection on autos.
- 15. Protect electronic components in the process of auto repair.
- 16. Diagnose, replace and/or repair suspension, steering, electrical, brake, drive-train, fuel, exhaust, and restraint systems in automobiles.
- 17. Explain in general how auto air conditioning and heating systems work.
- 18. Demonstrate basic skills in computer operations and/or software applications.
- 19. Prepare personal financial documents including a budget.
- 20. Explain interest rates as they apply to personal credit.
- 21. Conduct oneself professionally in an interview situation.
- 22. Create an error-free portfolio of business employment documents using computer technology.

Collision Repairer Certificate

Upon completion of the Collision Repairer Certificate program the student can:

- 1. Prepare and prime for painting auto panels.
- 2. Sand, grind, pull, rough and fill auto panels.
- 3. Understand and safely use tools associated with auto body repair.
- 4. Replace and align bolts on parts such as doors, hoods, and fenders.
- 5. Repair and replace weld-on panels.
- 6. Use lacquer, acrylic enamel and refinishing products.
- 7. Prepare auto surfaces for painting and use a paint spray gun safely.
- 8. Mix paints for auto use and solve paint application problems.
- 9. Repair plastic, fiberglass, and flexible automobile parts.
- 10. Analyze, repair, and replace structural panels on unibody automobiles.
- 11. Align the frame on unibody and frame cars.
- 12. Replace modular glass on cars.
- 13. Weld structural components on automobiles.
- 14. Restore corrosion protection on autos.
- 15. Protect electronic components in the process of auto repair.
- 16. Diagnose, replace and/or repair suspension, steering, electrical, brake, drive-train, fuel, exhaust, and restraint systems in automobiles.
- 17. Explain in general how auto air conditioning and heating systems work.

Automotive Painter Certificate

Upon completion of the Automotive Painter Certificate program the student can:

- 1. Prepare and prime for painting auto panels.
- 2. Sand, grind, pull, rough and fill auto panels.
- 3. Understand and safely use tools associated with auto body repair.
- 4. Replace and align bolts on parts such as doors, hoods, and fenders.
- 5. Repair and replace weld-on panels.
- 6. Use lacquer, acrylic enamel and refinishing products.
- 7. Prepare auto surfaces for painting and use a paint spray gun safely.
- 8. Mix paints for auto use and solve paint application problems.
- 9. Repair plastic, fiberglass, and flexible automobile parts.
- 10. Analyze, repair, and replace structural panels on unibody automobiles.
- 11. Align the frame on unibody and frame cars.
- 12. Replace modular glass on cars.
- 13. Weld structural components on automobiles.
- 14. Restore corrosion protection on autos.

Automotive Painter Helper Certificate

Upon completion of the Automotive Painter Helper Certificate program the student can:

- 1. Prepare and prime for painting auto panels.
- 2. Sand, grind, pull, rough and fill auto panels.
- 3. Understand and safely use tools associated with auto body repair.
- 4. Replace and align bolts on parts such as doors, hoods, and fenders.
- 5. Repair and replace weld-on panels.
- 6. Use lacquer, acrylic enamel and refinishing products.
- 7. Prepare auto surfaces for painting and use a paint spray gun safely.

Collision Repair Helper Certificate

Upon completion of the Auto Body Helper Certificate program the student can:

- 1. Prepare and prime for painting auto panels.
- 2. Sand, grind, pull, rough and fill auto panels.
- 3. Understand and safely use tools associated with auto body repair.

Outlines:

Diploma Collision Repair Technician

General Education Courses:

	Subtotal	6 credit hours
	Quantitative Reasoning	
Area 2 =	Social/Behavioral Sciences, Natural Sciences, or	3 credit hours
	Humanities/Heritage	
Area 1 =	Written Communication, Oral Communications, or	3 credit hours

Technical Courses:

1 CCIIII	icai Cou	ii ses.	
		Computer/Digital Literacy course OR	
		demonstrated Competency	0-3
CRT	100	Introduction to Collision Repair	2
CRT	130	Non-Structural Analysis and Damage Repair	6
CRT	131	Non-Structural Analysis and Damage Repair Lab	6
CRT	150	Painting and Refinishing	6
CRT	151	Painting and Refinishing Lab	6
CRT	230	Structural Analysis and Damage Repair	6
CRT	231	Structural Analysis and Damage Repair Lab	6
CRT	250	Mechanical and Electrical Components	6
CRT	251	Mechanical and Electrical Components Lab	6
		Subtotal	50-53
		Total Credits	56-59

Recommended Program Electives

CRT	198	Practicum OR	(1)
CRT	199	Cooperative Education	(1)
CRT	298	Advanced Practicum OR	(2)
CRT	299	Advanced Cooperative Education	(2)

Certificates Collision Repairer

Technical Courses:

CRT	100	Introduction to Collision Repair	2
CRT	130	Non-Structural Analysis and Damage Repair	6
CRT	131	Non-Structural Analysis and Damage Repair Lab	6
CRT	150	Painting and Refinishing	6

CRT	151	Painting and Refinishing Lab	6
CRT	230	Structural Analysis and Damage Repair	6
CRT	231	Structural Analysis and Damage Repair Lab	6
CRT	250	Mechanical and Electrical Components	6
CRT	251	Mechanical and Electrical Components Lab	6
		Total Credits	50
		Automotive Paint	ter
Techn	ical Cou	rses:	
CRT	100	Introduction to Collision Repair	2
CRT	130	Non-Structural Analysis and Damage Repair	6
CRT	131	Non-Structural Analysis and Damage Repair Lab	6
CRT	150	Painting and Refinishing	6
CRT	151	Painting and Refinishing Lab	6
CRT	230	Structural Analysis and Damage Repair	6
CRT	231	Structural Analysis and Damage Repair Lab	6
		Total Credits	38
		Automotive Painter I	Helper
Requir	ed:		P
CRT	100	Introduction to Collision Repair	2
CRT	150	Painting and Refinishing	6
CRT	151	Painting and Refinishing Lab	6
0111	101	Total Credits	14
		Collision Repair He	elner
Requi	red•	Comploir Repair 110	pc.
CRT	100	Introduction to Collision Repair	2
	100	Electives (Collision Repair Courses with the	2
		exception of CRT 150 and CRT 151)	12
		Total Credits	14
		Total Credits	14

Dates of Actions: Approved: 1999 **Revised:** May 2007, April 2011