

ERIE COUNTY TECHNICAL SCHOOL

PROPOSED AGENDA ITEM

DATE: August 2011

SUBJECT: Curriculum

CATEGORY: Operations: X **Policy:** **Information:** **Personnel:**

INITIATED BY: Jan Kennerknecht

DESCRIPTION: A new course sequence chart and program guide are proposed by our Auto Body Repair instructor for delivery beginning with the 2011-2012 school year. These changes will reflect alignment with the PDE Program of Study for Automotive Body Repair CIP #47.0603. Course syllabi will be developed/updated upon approval.

RECOMMENDATION: Motion to approve the attached Auto Body Repair Course Sequence Chart and Program Guide for delivery beginning 2011-2012 as listed.



AUTO BODY REPAIR **ECTS QUARTERLY COURSE SEQUENCE**

	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
YEAR I	ABR101 45 Orientation, Shop Safety & Efficiency ABR102 45 Principles of Design, Construction Lifting and Supporting ABR103 30 Introduction to Careers TOTAL:120	ABR104 30 Hand Tool Technology ABR106 30 Power Tool Technology ABR121 30 Working Sheet Metal ABR105 15 Math for Auto Body Repair I ABR109 15 Leadership TOTAL:120	ABR108 45 Compressed Air System Technology ABR202 30 MIG Welding Equipment and Technology ABR181 45 Vehicle Surface Prep. and Masking TOTAL:120	ABR 191 30 Job Success and ASE Certification ABR122 45 Using Body Fillers ABR203 30 Service Info Specs. and Measurements ABR107 15 Math for Auto Body Repair II TOTAL:120
Year 2011/2012	<u>1st Quarter</u> ABR291 30 LII Laboratory Practices I ABR281 45 Refinish Equipment Technology ABR211 45 Damage Appraisal TOTAL:120	<u>2nd Quarter</u> ABR292 30 LII Laboratory Practices II ABR204 30 Body Shop Materials and Fasteners ABR282 30 Refinishing Procedures ABR201 15 Applied Math II ABR209 15 Business Principles TOTAL:120	<u>3rd Quarter</u> ABR293 30 LII Laboratory Practices III ABR221 45 Hood, Bumper, Fender, Lid, and Trim Service ABR222 45 Door, Roof, and Glass Service TOTAL:120	<u>4th Quarter</u> ABR294 30 LII Laboratory Practices IV ABR231 45 Welded Panel Replacement ABR232 45 Restoring Corrosion Protection TOTAL:120
Year 2012/2013	<u>1st Quarter</u> ABR391 30 LIII Laboratory Practices I ABR321 45 Repairing Plastics ABR322 45 Passenger Compartment Service TOTAL:120	<u>2nd Quarter</u> ABR392 30 LIII Laboratory Practices II ABR331 30 Uni-Body Frame Realignment ABR332 30 Body/Frame Damage Measurement ABR301 15 Applied Math III ABR309 15 Total Quality Concepts TOTAL: 120	<u>3rd Quarter</u> ABR393 30 LIII Laboratory Practices III ABR341 45 Chassis Service and Wheel Alignment ABR342 45 Electrical/Electronic System Operation and Service TOTAL: 120	<u>4th Quarter</u> ABR394 30 LIII Laboratory Practices IV ABR343 45 Restraint System Operation and Service ABR381 45 Paint Problems and Final Detailing TOTAL: 120



Auto Body Repair Program Guide

CIP Code # 47.0603

Standard Occupational Classifications	2010 Pennsylvania High Priority Occupations (HPO)
49-3021.00 Automotive Body and Related Repairers 51-9122.00 Painters, Transportation Equipment	13-1031 Claims Adjusters Examiners & Investigators ³ 13-1051 Cost Estimators ³ 47-2211 Sheet Metal Workers ³ 51-4121 Welders, Cutters, Solderers & Brazers ³
Industry Accreditation	Student Certifications
National Automotive Training Education Foundation (NATEF)	ECTS Program Completer or Participant Pennsylvania Skills Certificate SP2 "Collision Safety" SP2 "Pollution Prevention" Pennsylvania State Inspection License Pennsylvania State Emissions License

Key: ¹Statewide HPO ²Regional HPO ³Both Statewide and Regional HPO

For more information, go to: <http://online.onetcenter.org/find/family?f=17&g=Go>

Expected Characteristics and Traits for Success

The Collision Repair industry is rapidly and continuously advancing in both manufacturing and repair technologies. The Collision Repair Program is designed to stress the most important characteristics and basic skills required for the success of an entry-level technician. Listed below are the characteristics, qualities and expectations that are considered to be essential for the success of the student and eventually the technician.

First and foremost it must be understood that collision repair is a LABOR INTENSIVE occupation. Almost all the work done is either loud, dusty or will involve the use of hazardous chemicals.

The student should possess the following traits:

- Excellent attendance.
- Good/hand eye coordination and no respiratory problems.
- Good problem solving skills; students will be faced with many decisions and need to be able to reason their way through them in a logical sequence.
- SAFETY CONSCIOUS. Safety must be an attitude rather than an exception.
- Good basic math skills, familiar with addition, subtraction, multiplication and division of whole numbers and fractions. Students should be able to read a fractional and metric ruler and also be able to work with ratios.
- Self-motivated and able to work independently as well as part of a team.
- Able to communicate well in writing and verbally.

Listed below are the items each student must supply.

Auto Body Hand Tool Requirements Level One

1. Needle Nose Pliers	
2. Combination Pliers	
3. Locking Pliers (Vise Grips)	

4. Screwdriver Set (6 piece) Straight Blade and Phillips	
5. Wrench Sets • Combination Fractional sizes 6pt. • Combination Metric sizes 6 pt.	
6. Adjustable Wrench 12" (crescent)	
7. Socket Wrench Sets • 1/4" Drive, Deep and Shallow Well 6 pt. Fractional Sizes • 1/4" Drive, Deep and Shallow Well 6 pt. Metric Sizes • 3/8" Drive, Deep and Shallow Well 6pt. Fractional Sizes • 3/8" Drive, Deep and Shallow Well 6 pt. Metric Sizes	
8. Ball Peen Hammer	

9. Compressed Air Blow Gun	
10. Pick Hammer	
11. Universal Dolly	
12. Sponge Pad	
13. Squeegee	
14. Rubber Sanding Block	

15. Tool Box	
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In addition to the above listed tools students are required to have:

1. One Piece Coveralls
2. Work Boots with oil resistant soles
3. Leather Gloves
4. Solvent resistant Rubber Gloves
5. Three Ring Binders for Notebooks and Portfolio
6. Disposable Camera

This is a partial list of common hand tools that employers expect an entry-level technician bring on the job with him. It is suggested that a good quality brand with a lifetime guarantee be chosen. The reason for quality tools is for safety and also value. Research your options before making any purchases.

Auto Body Hand Tool Requirements Level Two

1. Six inch (6") Dual Action Sander.	
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2. Five inch (5") Air Grinder.	
3. Air ratchet (1/4" or 3/8" drive)	
4. Sixteen inch (16") Hand Board	
5. Crow Foot Upholstery Tool.	
6. Buffing Spur.	
7. HVLP (high volume low pressure) Gravity Feed Paint Gun.	

Auto Body Hand Tool Requirements Level Three

1. Air (Board) File.	
2. Air Cut-off tool (abrasive wheel).	
3. Torx Socket set (1/4 and 3/8 drives).	
4. Heel Dolly.	



AUTO BODY REPAIR

Content Area	Course Title	Course Number	Course Hours
00	Intro to Auto Body		
	Orientation, Shop Safety and Efficiency	ABR101	45
	Principles of Design, Construction, Lifting and Supporting	ABR102	45
	Introduction to Careers	ABR103	30
	Hand Tool Technology	ABR104	30
	Math for Auto Body Repair	ABR105	15
	Power Tool Technology	ABR106	30
	Math for Auto Body Repair II	ABR107	15
	Compressed Air System Technology	ABR108	45
	Leadership	ABR109	15
	Applied Math II	ABR201	15
	MIG Welding Equipment & Technology	ABR202	30
	Service Info Specs and Measurements	ABR203	30
	Body Shop Materials & Fasteners	ABR204	30
	Business Principles	ABR209	15
	Applied Math III	ABR301	15
	Total Quality Concepts	ABR309	15
10	Estimating		
	Damage Appraisal	ABR211	45
20	Minor Repairs		
	Working Sheet Metal	ABR121	30
	Using Body Fillers	ABR122	45
	Hood Bumper, Fender, Lid and Trim Service	ABR221	45
	Door, Roof and Glass Service	ABR222	45
	Repairing Plastics	ABR321	45
	Passenger Compartment Service	ABR322	45
30	Major Body Frame Repairs		
	Welded Panel Replacement	ABR231	45
	Restoring Corrosion Protection	ABR232	45
	Uni-body Frame Realignment	ABR331	30
	Body/Frame Damage Measurement	ABR332	30

40	Mechanical and Electrical Repairs		
	Chassis Service and Wheel Alignment	ABR341	45
	Electrical/Electronic System Operation and Service	ABR342	45
	Restraint System Operation & Service	ABR343	45
80	Refinishing		
	Vehicle Surface Prep and Masking	ABR181	45
	Refinish Equipment Technology	ABR281	45
	Refinishing Procedures	ABR282	30
	Paint Problems & Final Detailing	ABR381	45
90	Collision Repair Professionalism		
	Job Success & ASE Certification	ABR191	30
	LII Lab Practices I	ABR291	30
	LII Lab Practices II	ABR292	30
	LII Lab Practices III	ABR293	30
	LII Lab Practices IV	ABR294	30
	LIII Lab Practices I	ABR391	30
	LIII Lab Practices II	ABR392	30
	LIII Lab Practices III	ABR393	30
	LIII Lab Practices IV	ABR394	30