

DUTY AREAS AND TASKS	NOCTI COMPETENCY	NATIONAL SKILL STANDARD - NATEF	TASK COMPLETION
A. S.T.E.A.D			
1. Safety			
a. Follows all safety rules	SEI1	V.A.1	
b. Exhibits proper safety practices when working	SEI1	V.A.1	
c. Contributes to a safe shop environment	SEI1	V.A.3	
d. Wears required shop clothing: coveralls, safety shoes, safety glasses and hearing protection	SEI1	V.A.2, 4-6	
2. Time		N/A	
a. Spends 100% of time on assigned tasks	N/A	N/A	
b. Uses time efficiently	N/A	N/A	
c. Gets dressed for work as quickly as possible	N/A	N/A	
d. Minds one's own business	N/A	N/A	
e. Has good school attendance (no more than two legal absences, excuse turned in within the three day limit per nine weeks)	N/A	N/A	
f. Cleans up at the proper designated time	N/A	N/A	
3. Equipment		N/A	
a. Uses equipment, tools and materials correctly, as they were intended	N/A	N/A	
b. Uses vice-grips to handle hot metal	N/A	N/A	
c. When finished, puts tools away immediately	N/A	N/A	
d. Puts scrap metal away immediately	N/A	N/A	
e. Keeps shop area and equipment clean and ready for use	N/A	N/A	
4. Attitude		N/A	
a. Exhibits a positive work attitude	N/A	N/A	
b. Respects the rights of fellow workers and supervisors	N/A	N/A	
c. Refuses to settle for "It is good enough."	N/A	N/A	
d. Obeys school and shop rules	N/A	N/A	

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e. Starts to work without being told	N/A	N/A	
f. Avoids wasting time	N/A	N/A	
g. Avoids childish behavior/activities like horseplay and teasing	N/A	N/A	
h. Show professionalism in actions and attitude	N/A	N/A	
5. Duties	N/A	N/A	
a. Always does what is expected and assigned	N/A	N/A	
b. Works on personal projects only with a written work order that has been approved by instructor	N/A	N/A	
c. Does special assignments as given	N/A	N/A	
d. Cooperates on performing disciplinary assignments	N/A	N/A	
B. NON-STRUCTURAL ANALYSIS AND DAMAGE REPAIR PREPARATION			
1. Review Damage Report and Analyze Damage to Determine Appropriate Methods of Repair	NS1	II.A.1	
2. Remove and Replace Damaged Outside Trim and Moldings	NS2	II.A.2	
3. Remove and Replace Damaged Inside Trim and Moldings	NS2	II.A.3	
4. Remove Damaged Non-structural Body Panels and Components That May Interfere with or be Damaged During Repair (Replace after Repair)	NS3 NS4	II.A.4	
5. Remove All Vehicle Mechanical and Electrical Components That May Interfere with or be Damaged During Repair (Replace after Repair)	MES1	II.A.5	
6. Protect Panels and Parts Adjacent to Repair Area to Prevent Damage	NS2	II.A.6	
7. Remove Dirt, Corrosion Protection, Undercoats, Sealers and Other Protective Coatings Necessary to Perform Repairs to Structural Areas	PR1	II.A.8	
8. Remove Dirt, Grease and Wax from Those Areas to Be Repaired	PR1	II.A.7	
9. Remove Repairable Plastics and Other Parts That Are Recommended for Off-car Repair	NS1	II.A.9	

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10. Apply safety procedures associated with vehicle components and systems according to manufactures specifications/procedures.	SEI1	II.A.10	
11. Apply environmental practices associated with vehicle components and systems such as substrates, fluids, refrigerants, batteries, etc.	SEI1	II.A.11	
C. TOOLS			
1. Use ¼”, 3/8”, and ½” Drive Socket Sets (Metric and Standard) to Remove and Replace Hardware	SEI2	N/A	
2. Use Screw Drivers (Phillips, Flat, Clutch, Torx, Allen, Etc.) To Remove and Replace Hardware	SEI2	N/A	
3. Use Automotive Wrench Sets to Remove and Install Hardware	SEI2	N/A	
4. Use Automotive Chisels and Punches	SEI2	N/A	
D. OPERATE AUTO BODY REFINISHING EQUIPMENT			
1. Inspect, Clean and Determine Condition and Adequacy of Spray Guns and Related Equipment (Air Hoses, Regulators and Compressors)	PR2-3	V.C.1	
2. Check and Adjust Air Pressure on the Spray Gun (Includes Siphon Feed, Pressure Feed and Gravity Feed)	PR2	V.C.1, 2	
3. Adjust Spray Gun Using Fluid and Pattern Control Valves	PR2	V.C.3	
4. Check and Adjust High Volume, Low Pressure Spray Equipment	PR2	V.C.2	
E. AUTO BODY WELDING EQUIPMENT			
1. GMAW (MIG) Welding			
a. Identify weldable and non-weldable materials used in auto body components	S1, S2	II.E.1, I.D.1	
b. Determine correct electrode wire type diameter and gas to be used in specific welding situations	S1	II.E.4, I.D.4	
c. Determine correct electrode stick out, amperage and wire speed required for the weld	S1	II.E.5, I.D.5	
d. Identify safety considerations, eye protection, proper clothing, shock hazards,	SEI2		

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dangerous fumes, etc. before welding			
e. Set up the welder in accordance with manufacturer's instructions: clean the gun and gas nozzle as required	S1	II.E.5, I.D.5	
f. "Tune" the welder to the material being welded	S1	II.E.5, I.D.5	
g. Use the proper angle of the gun to the joint, and the direction of gun travel for the type of weld being made in the flat, horizontal, vertical and overhead positions	S2	II.E.8, I.D.8	
h. Protect computers and other electronic modules from possible damage	S2	II.E.10, I.D.10	
i. Clean the metal to be welded; assure good metal fit through preparation and clamping	S5	II.E.11, I.D.11	
j. Determine the correct joint type (butt, lap for weld being made)	S2	II.E.12, I.D.12	
k. Make the correct type of weld (continuous, stitch/pulse, tack, plug, etc.) for each specific weld repair	S2	II.E.13, I.D.13	
l. Identify cause(s) of spits and sputters, burn through, lack of penetration, cracks in the metal, porosity, incomplete fusion, excessive splatter, distortion and waviness of the bead; make necessary adjustments	S2	II.E.16, I.D.16	
m. Identify cause(s) of contact tip burn back and failure of wire to feed; make necessary adjustments	S1	II.E.17, I.D.17	
2. Oxyacetylene Torch	S1	I.D.1-2, II.E.1-3	
a. Set up oxyacetylene equipment	S1	I.D.1-2, II.E.1-3	
b. Adjust oxyacetylene torch to the three basic flames	S1	I.D.1-2, II.E.1-3	
c. Perform oxyacetylene cutting operations	S2	I.D.1-2,	

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		II.E.1-3	
3. Plasma Cutting	S1	I.D.1-2, II.E.1-3	
a. Connect unit to clean air supply, set up per manufacturer's instructions	S1	I.D.1-2, II.E.1-3	
b. Connect ground	S1	I.D.1-2, II.E.1-3	
c. Purge nozzle	S1	I.D.1-2, II.E.1-3	
d. Cut sheet metal (229)	S2	I.D.1-2, II.E.1-3	
e. Shut down unit	S1	I.D.1-2, II.E.1-3	
F. OUTER BODY PANEL REPAIRS			
1. Determine the Extent of the Direct and Indirect Damage, the Direction of Impact and Plan the Methods and Order of Repair	NS1,S4,S5	II.B.1	
2. Remove and Replace a Welded Steel Panel or Panel Assembly	S5,NS3,NS4	II.B.2	
3. Determine the Extent of Damage to Aluminum Body Panels; Repair; Weld or Replace in Accordance with Manufacturer's Specification	S5,NS3,NS4	II.B.3	
4. Remove, Replace and Align Hood, Hood Hinges and Hood Latch	S5,NS3,NS4	II.B.4	
5. Remove, Replace and Align Doors, Tailgates, Hatches, Lift Gates, Latch Assemblies and Hinges	S5,NS3,NS4	II.B.6	
6. Remove, Replace and Align Deck Lids, Lid Hinges and Lid Latch	S5,NS3,NS4	II.B.5	
7. Remove , Replace and Align Bumpers, Reinforcements, Guards, Isolators and Mounting Hardware	S5,NS3,NS4	II.B.7	

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8. Check and Adjust Clearances of Front Fenders, Headers and Other Panels	S5,NS3,NS4	II.B.8	
9. Check Door Hinge Condition; Check Door Frames for Proper Fit; Check and Adjust Door Clearances (Where Adjustable) along Quarter Panel, Door, Rocker Panel, Fender and Top	S5,NS3,NS4	II.B.6	
10. Straighten Roughed out Contours of Damaged Panel to a Surface Condition for Body Filling or Metal Finishing Using Power and Hand Tools	S5,NS3,NS4	II.B.9	
11. Weld Cracked or Torn Steel Body Panels; Reweld Welds That Have Broken	S1,S2	II.B.10	
12. Heat Shrink Stretched Panel Areas Back to Contour	S1	II.C.4	
13. Cold Shrink Stretched Panel Areas Back to Contour	S1	II.C.5	
14. Apply Protective Coatings and Sealants	PR3	II.B.11	
15. Braze Body Panels Only in Locations Recommended by Vehicle Manufacturers	S1	II.B.19	
16. Cut out Damaged Sections of Sheet Metal Body Panels and Weld in Replacements According to Vehicle and Industry Specifications	S1,NS3,NS4	II.B.2	
17. Repair or Replace Door Skins and Intrusion Beams in Accordance with Vehicle Manufacturer's Specification	S1,NS3,NS4	II.B.12	
18. Replace or Repair Plastic Panels According to Vehicle Manufacturer and Industry Standards	NS1	II.F.3	
G. METAL FINISHING			
1. Grind the Paint from the Damaged Area of a Body Panel	S4,S5,NS3, NS4	II.C.1	
2. Remove Dents from a Damaged Panel (Using Hammers, Dollies, Picks, Spoons Pullers, Files, Etc.)	S4,S5,NS3, NS4	II.C.3	
3. Disc Sand the Repair Area to Produce Final Smoothness	S4,S5,NS3, NS4	II.C.1	
4. Rough Sand and Finish Sand All Types of Body Filler	S4,S5,NS3, NS4	II.C.8	
H. BODY FILLERS			
1. Mix Plastic Filler, Fiberglass and Glazing Putty	S4,S5,NS3, NS4	II.C.6	
2. Apply Plastic, Fiberglass and Glazing Putties	S4,S5,NS3, NS4	II.C.7	

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3. Cheese Grate Body Filler	S4,S5,NS3, NS4	II.C.8	
4. Rough Sand and Finish Sand All Types of Body Filler	S4,S5,NS3, NS4	II.C.8	
I. MOVEABLE GLASS AND HARDWARE			
1. Inspect, Adjust, Repair or Replace Window Regulators, Run Channels, Glass, Power Mechanisms and Related Controls	NS2	II.D.1	
2. Repair or Replace All Power-driven Accessories and Related Controls (Including Electrical-heated Glass)	NS2	II.D.3	
3. Diagnose and Repair Water Leaks, Dust Leaks and Wind Noises; Inspect, Repair and Replace Weather Stripping	NS2	II.D.2	
4. Inspect, Repair or Replace and Adjust Removable, Manually-operated Roof Panels, and Hinges, Latches, Guides, Handles Retainers and Controls of Sun Roofs	NS2	II.D.4	
J. FIXED GLASS			
1. Remove and Replace Fixed Glass (Heated and Non-heated) Using Manufacturer's Procedures	NS2	I.C.1	
2. Remove and Replace Modular Glass Using Manufacturer's Procedures	NS2	I.C.2	
3. Remove and Replace Butyl-retained Modular Glass	NS2	I.C.2	
4. Remove and Replace Urethane-retained Modular Glass with Mechanical Fasteners	NS2	I.C.2	
5. Determine When to Use the Partial Cutout or the Full Cutout Method of Repair When Replacing a Windshield	NS2	I.C.1	
K. STRUCTURAL ANALYSIS AND DAMAGE REPAIR			
1. Diagnose and Measure Structural Damage Using Tram and Centering Gauges According to Manufacturer's Specifications	S4	I.A.1	
2. Remove and Replace Damaged Frame, Horns, Side Rails, Cross-members and Front or Rear Sections	S5	I.A.8	
3. Clean, Prime and Protective Coat Required Frame Areas	PR.1. 2.3.4.	I.A.9	
4. Repair, Reinforce or Replace Wrecked or Cracked Frame Members in Accordance	S12345	I.A.8	

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with Vehicle Manufacturer's Recommendations/Industry Standards	NS1234		
L. UNIBODY INSPECTION			
1. Identify Bent or Damaged Steering, Suspension and Power Train Components Which Can Cause Vibration, Steering and Four Wheel Alignment Problems; Replace in Accordance with Vehicle Manufacturer's Recommendations	MSE1,2	I.B.1	
2. Determine the Extent of the Direct and Indirect Damage and the Direction of Impact, and Plan the Methods and Order of Repair	S4,S5	I.B.6	
3. Determine the Extent of Damage to the Structural Steel Body Panels; Repair, Weld or Replace in Accordance with Vehicle Manufacturer's Specifications/Industrial Standards	S4,S5	I.B.17	
4. Perform Structural Panel Sectioning in Accordance with Vehicle/Manufacturer's Specifications/Industrial Standards	S1,2,3,4,5	I.B.17	
5. Recheck Panel Contour and Alignment after Repairing, Correct or Adjust as Necessary Structural Areas to Correct or Adjust as Necessary Structural Areas to Restore Vehicle Manufacturer's Level of Protection	S1,2,3,4,5	I.B.17	
6. Clean, Prime and Coat Repaired Unibody Structural Areas to Restore Vehicle Manufacturer's Level of Protection	PR1,2,3,4	I.B.18	
M. SUSPENSION AND STEERING			
1. Inspect/adjust Tension and Alignment, and Replace Power Steering Pump Belt(s)	MES1,2	III.A.2	
2. Remove and Replace Power Steering Pump; Inspect Pump Mounts	MES1,2	III.A.2	
3. Inspect and Replace Power Steering Hoses and Fittings	MES1,2	III.A.2	
4. Remove and Replace Tie Rods, Sleeves, Clamps and Tie Rod Ends(sockets)	MES1,2	III.A.4	
5. Remove and Replace Upper and Lower Control Arms	MES1,2	III.A.11	
6. Remove and Replace Upper and Lower Control Arm Busing, Shafting, and Rebound Bumpers	MES1,2	III.A.12	
7. Remove and Replace Strut Rods and Bushings on Long and Short Arm Suspension Systems	MES1,2	III.A.18	

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8. Remove and Replace Upper and Lower Ball Joints on Short and Long Arm Suspension Systems	MES1,2	III.A.13	
9. Remove and Replace Steering Knuckle/Spindle Assemblies	MES1,2	III.A.14	
10. Remove and Replace Front Suspension System Coil Springs and Spring Insulators (Silencers)	MES1,2	III.A.15	
11. Inspect, Replace and Adjust Suspension System Torsion Bars; Inspect Mounts	MES1,2	III.A.16	
12. Inspect and Replace Stabilizer Bar, Bushings, Brackets and Links	MES1,2	III.A.17	
13. Inspect and Replace MacPherson Strut Cartridge or Assembly, Upper Bearing and Mount	MES1,2	III.A.18	
14. Remove and Replace Rear Suspension System Coil Springs and Spring Insulators	MES1,2	III.A.19	
15. Inspect, Remove and Replace Rear Suspension System Transverse Links, Control Arms, Stabilizer Bars, Bushings and Mounts	MES1,2	III.A.19	
16. Inspect, Remove and Replace Rear Suspension System Leaf Springs(s), Leaf Spring Insulators Shackles, Brackets, Bushings and Mounts	MES1,2	III.A.20	
17. Inspect Rear Axle Assembly for Bending, Warping and Misalignment	MES1,2	III.A.21	
18. Remove, Inspect and Replace Shock Absorbers	MES1,2	III.A.22	
19. Check Tire Pressure and Adjust	MES1	III.A.43	
20. Rotate Tires According to Manufacturer's Recommendations	MES1	III.A.43	
N. ELECTRICAL			
1. Inspect, Test and Replace Fusible Links, Circuit Breakers and Fuses	MES1.3.4.	III.B.4	
2. Inspect, Clean and Replace Battery	MES1.3.4.	III.B.5	
3. Perform Slow/Fast Battery Charge in Accordance with Manufacturer's Recommendations	MES1.3.4.	III.B.8	
4. Inspect, Clean and Replace Battery Cables, Connectors and Clamps	MES1.3.4.	III.B.10	
5. Inspect, Adjust and Replace Alternator Drive Belts, Pulleys and Fans	MES1.3.4.	III.B.11	
6. Remove and Replace Alternator	MES1.3.4.	III.B.12	

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7. Remove and Replace Headlights, Parking/Tail Lights, Stoplights, Flashers, Turn Signals and Back-up Light; Check Operation	MES1.3.4.	III.B.13	
8. Inspect, Replace and Aim Headlights/Bulbs	MES1.3.4.	III.B.14	
9. Check Operations of Retractable Headlight Assembly	MES1.3.4.	III.B.14	
10. Remove and Replace Motors, Switches, Relays, Connectors and Wires of Retractable Headlight Assembly Circuits	MES1.3.4.	III.B.15	
11. Inspect, Test and Repair or Replace Switches, Relays, Bulbs, Sockets, Connectors and Wires of All Light Circuits Including Four-wire Tail Light Systems	MES1.3.4.	III.B.15	
12. Remove and Replace Horn(s); Check Operation	MES1.3.4.	III.B.16	
13. Check Operation of Windshield Wiper/Washer System	MES1.3.4.	III.B.17	
14. Check Operation of Power Side Windows and Power Tail Gate Window	MES1.3.4.	III.B.18	
15. Remove and Replace Power Seat, Motors, Linkages, Cables, Etc.; Check Operation	MES1.3.4.	III.B.19	
16. Remove and Replace Components of Electric Door and Hatch/Trunk Locks; Check Operation	MES1.3.4.	III.B.20	
17. Remove and Replace Components of Keyless Lock/unlock Devices; Check Operation	MES1.3.4.	III.B.21	
18. Remove and Replace Components of Electrical Sunroof and Convertible Top; Check Operation	MES1.3.4.	III.B.22	
19. Check Operation of Electrically Heated Mirrors, Windshields, Back lights, Panels, Etc., Repair as Necessary	MES1.3.4.	III.B.23	
20. Remove and Replace Components of Power Antenna Circuits; Check Operation		III.B.24	
O. BRAKES			
1. Inspect brake lines and fittings for leaks, dents, kinks, rust, cracks or wear; tighten loose fittings and supports; replace brake lines (double flare and ISO types), hoses, fittings, and supports.	MES1, MES4	III.C.1	
2. Inspect flexible brake hoses for leaks, kinks, cracks, bulging or wear; remove and	MES1, MES4	III.C.2	

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replace hoses; tighten loose fittings and supports.			
3. Identify, handle, store and install appropriate brake fluids; dispose of in accordance with federal, state and local regulations.	MES1, MES4	III.C.3	
4. Bleed (manual, pressure, vacuum or surge) hydraulic brake system in accordance with manufacturer's specifications.	MES1, MES4	III.C.4	
5. Pressure test brake hydraulic system; determine needed repair.	MES1, MES4	III.C.5	
6. Adjust brake shoes; remove and reinstall brake drums or drum/hub assemblies and wheel bearings.	MES1, MES4	III.C.6	
7. Reinstall wheel and torque lug nuts according to manufacturer's specifications.	MES1, MES4	III.C.7	
8. Remove and reinstall caliper assembly.	MES1, MES4	III.C.8	
9. Clean and inspect caliper mountings for wear and damage.	MES1, MES4	III.C.9	
10. Check parking brake system operation.	MES1, MES4	III.C.10	
11. Identify and replace ABS wheel speed sensor components according to manufacturer's specifications.	MES1, MES4	III.C.11	
12. Depressurize ABS hydraulic or electronic system according to manufacturer's specifications.	MES1, MES4	III.C.12	
13. Identify the proper procedures for handling brake dust.	MES1, MES4	III.C.13	
14. Check for bent or damaged brake system components.	MES1, MES4	III.C.14	
P. HEATING AND AIR CONDITIONING			
1. Discharge Air Conditioning System	MES1.3.4.	III.D.4	
2. Inspect, Adjust and Replace Air Conditioning Compressor Drive Belts and Pulleys	MES1.3.4.	III.D.11	
3. Remove, Inspect and Replace Air Conditioning Compressor and Mounts	MES1.3.4.	III.D.12	
4. Inspect, Repair and Replace Air Conditioning Hoses, Lines, Fittings, and Seals	MES1.3.4.	III.D.13	
5. Inspect Air Conditioning Condenser for Air Flow Restrictions; Clean and Straighten Fins	MES1.3.4.	III.D.14	
6. Inspect, Test and Replace Air Conditioning Condenser and Mounts	MES1.3.4.	III.D.14	

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7. Inspect, Test and Repair or Replace Air Conditioning Component Wiring	MES1.3.4.	III.D.16	
8. Inspect, Test and Repair Heating Ventilation and Air Conditioning Cuts, Door, Hoses and Outlets	MES1.3.4.	III.D.13	
9. Inspect, Flush and Replace Heater Core	MES1.3.4.	III.E.1	
10. Inspect and Replace Engine Cooling and Heater System Hoses and Belts	MES1.3.4.	III.E.1	
11. Remove, Inspect or Replace Radiator, Pressure Cap, Coolant Recovery System and Water Pump	MES1.3.4.	III.E.2	
12. Drain, Flush and Refill System with Proper Coolant and Level or Protection	MES1.3.4.	III.D.2	
13. Remove and Replace Fan, Fan Clutch (Both Electrical and Mechanical) and Fan Shroud	MES1.3.4.	III.D.6	
14. Inspect, Remove and Replace Auxiliary Oil Coolers	MES1.3.4.	III.D.5	
Q. RESTRAINT SYSTEMS			
1. Active Restraints	MES1.3.4.		
a. Remove and replace seat belts and shoulder harness in accordance to manufacturer's procedures	MES1.3.4.	III.H.1.1	
b. Inspect anchorage for deformation, repair as required	MES1.3.4.	III.H.1.2	
c. Verify proper operation of seat belt in accordance with manufacturer's procedures	MES1.3.4.	III.H.1.3	
2. Passive Restraints	MES1.3.4.		
a. Remove and replace seat belts and shoulder harness in accordance to manufacturer's procedures	MES1.3.4.	III.H.2.1	
b. Inspect anchorages for deformation, repair as required	MES1.3.4.	III.H.2.2	
c. Verify proper operation of seat belt in accordance with manufacturer's procedures	MES1.3.4.	III.H.2.3	
d. Remove and replace track and drive assembly, lap retractor, torso retractor assembly, inboard buckle-lap retractor, knee blocker, etc.	MES1.3.4.	III.H.2.4	
3. S.I.R. (Supplemental Inflatable Restraint System)	MES1.3.4.		
a. Disarm air bag system in accordance with manufacturer's procedures	MES1.3.4.	III.H.3.1	

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b. Identify, inspect and/or replace sensors and wiring in accordance to manufacturer's procedures; insure proper sensor orientation	MES1.3.4.	III.H.3.2	
c. Replace deployed air bag modules in accordance with manufacturer's procedures	MES1.3.4.	III.H.3.3	
d. Verify that system is armed and operational in accordance with manufacturer's procedures	MES1.3.4.	III.H.3.4	
e. Remove and replace non-deployed air bag; observe manufacturer's safety procedures	MES1.3.4.	III.H.3.5	
R. PLASTICS AND ADHESIVES			
1. Identify the Type of Plastics to Be Repaired	MES1.3.4.	II.F.1	
2. Identify the Type of Plastics Repair Procedures	MES1.3.4.	II.F.2	
3. Repair Rigid Plastic Parts with Urethane or Epoxy Adhesives	MES1.3.4.	II.F.3	
4. Repair Rigid Plastic Parts with Urethane Adhesive and Fiberglass Reinforcement	MES1.3.4.	II.F.3	
5. Repair Flexible Plastic Parts with Urethane or Epoxy Adhesives	MES1.3.4.	II.F.3	
6. Repair Flexible Plastic Parts with Urethane or Epoxy Adhesives and Fiberglass Reinforcement	MES1.3.4.	II.F.4	
7. Repair Holes and Cuts in Plastic Parts Using Backing Materials and Adhesives	MES1.3.4.	II.F.3	
8. Reshape and Shrink Flexible Exterior Plastic Parts	MES1.3.4.	II.F.3	
9. Remove Damaged Area from Rigid Exterior Sheet Molded Compound (SMC) and Bulk Molded Compound (BMC) Panels; Repair with Partial Panel Installation	MES1.3.4.	II.F.3	
S. PAINTING AND REFINISHING A SURFACE PREPARATION			
1. Remove and Store Trim and Moldings	NS2	V.B.1	
2. Remove Dirt, Wax, Road Grime and Special Coatings from Area to Be Refinished and from Adjacent Surfaces; Wash Entire Vehicle	PR1.2.3.4.	V.B.2	
3. Inspect and Identify Type of Finish and Surface Condition; Develop a Plan of Refinishing	PR1.2.3.4.	V.B.3	

DUTY AREAS AND TASKS	NOCTI COMPETENCY	NATIONAL SKILL STANDARD - NATEF	TASK COMPLETION
4. Chemically and Mechanically Remove Paint Finish Where Necessary	PR1.2.3.4.	V.B.4	
5. Dry and Wet Sand Areas to Be Refinished	PR1.2.3.4.	V.B.5	
6. Feather Edge Broken Areas to Be Refinished	PR1.2.3.4.	V.B.6	
7. Identify Type of Metal and Apply Suitable Metal Treatment	PR1.2.3.4.	V.B.7	
8. Mask Trim Other Areas That Will Not Be Refinished	PR1.2.3.4.	V.B.8	
9. Mix Primer, Primer Surfacer or Primer Sealer; Spray onto Surface of Repair	PR1.2.3.4.	V.B.9	
10. Dry or Wet Sand Areas to Which Primer Surfacer Has Been Applied	PR1.2.3.4.	V.B.12	
11. Compound or Prepare Around the Edge of the Repaired Area to Be Refinished	PR1.2.3.4.	V.B.14	
12. Blow Dust from Entire Vehicle Including Cracks and Moldings in the Area to Be Refinished	PR1.2.3.4.	V.B.14	
13. Clean Area to Be Refinished with Proper Solvent	PR1.2.3.4.	V.B.15	
14. Remove—with a Tack Rag—any Dust or Lint Particles from the Area to Be Refinished	PR1.2.3.4.	V.B.16	
15. Apply Recommended Sealer to the Area Being Refinished	PR1.2.3.4.	V.B.17	
16. Scuff Sand to Remove Nibs or Over spray from a Sealer	PR1.2.3.4.	V.B.18	
17. Apply Adhesive Promoter over Areas to Be Painted, Where Applicable	PR1.2.3.4.	N/A	
18. Apply Stone Chip-resistant Coating to Lower Body Areas	PR1.2.3.4.	V.B.19	
19. Restore Corrosion-resistant Coatings, Caulking and Seam Sealers to Repaired Areas	PR1.2.3.4.	V.B.20	
20. Prepare adjacent panel for blending.	PR1.2.3.4.	V.B.21	
21. Prepare plastic panels for refinishing.	PR1.2.3.4.	V.B.22	
T. PAINT MIXING			
1. Determine Type and Color of Paint on the Vehicle	PR1.2.3.4.	V.D.1	
2. Mix, Shake, Stir, Thin or Reduce and Strain Paint According to Manufacturer's Recommendations by Using Touch Mix Computer as Well	PR1.2.3.4.	V.D.2	
3. Select Proper Air Pressure and Spraying Technique (Gun Arc, Gun Angle, Gun Distance, Gun Speed and Spray Pattern Overlap) for Finish Being Applied	PR1.2.3.4.	V.D.3	

DUTY AREAS AND TASKS	NOCTI COMPETENCY	NATIONAL SKILL STANDARD - NATEF	TASK COMPLETION
4. Apply Selected Product on Test Panel in Accordance with Manufacturer's Recommendations	PR1.2.3.4.	V.D.4	
5. Apply Acrylic Enamel for Spot and Panel Blending and Overall Refinishing	PR1.2.3.4.	N/A	
6. Apply Urethane Enamel for Spot and Panel Blending, and Overall Refinishing	PR1.2.3.4.	V.D.5	
7. Apply Acrylic Urethane Base Coat/Clear Coat for Spot Repair, Panel Blending, and Overall Refinishing	PR1.2.3.4.	V.D.6, 7	
8. Check for Color Matching of All Applied Finishes	PR1.2.3.4.	V.D.15	
9. Select and Perform Sanding, Buffing and Polishing Processes for Finishes	PR1.2.3.4.	V.D.8	
10. Identify the Types of Rigid and Flexible Plastic Parts	PR1.2.3.4.	V.D.10	
11. Apply Finish to Rigid and Flexible Plastic Parts	PR1.2.3.4.	V.D.9	
12. Clean, Condition and Refinish Vinyl Upholstery, Dashes and Tops	PR1.2.3.4.	N/A	
13. Prepare Materials and Apply Three-stage Paint System	PR1.2.3.4.	V.D.11	
U. SOLVING PAINT APPLICATION PROBLEMS			
1. Identify Blistering (Raising of the Paint Surface); Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.1	
2. Identify Blushing (Milky or Dull Mist Formation); Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.2	
3. Identify Crows feet or Crizzling Appearance in the Paint Surface; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.17	
4. Check for Dirt in the Painted Surface, Identify the Source(s) and Correct the Problem	PR1.2.3.4.	V.E.19	
5. Identify a Dry Spray Pattern in the Paint Surface; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.3	
6. Identify the Appearance of Fish-eyes (Crater-like Openings) in the Finish after it Has Been Applied; Determine the Cause(s) and Correct the Problem	PR1.2.3.4.	V.E.4	
7. Identify Lifting (Surface Distortion or Shriveling); Determine the Cause(s) and Correct the Problem	PR1.2.3.4.	V.E.5	

DUTY AREAS AND TASKS	NOCTI COMPETENCY	NATIONAL SKILL STANDARD - NATEF	TASK COMPLETION
8. Identify Mottling in Metallic Paint Finishes; Determine the Cause(s) and Correct the Problem	PR1.2.3.4.	V.E.6	
9. Identify Streaking in the Paint Finishes; Determine the Cause(s) and Correct the Problem	PR1.2.3.4.	V.E.6	
10. Identify Orange Peel Condition; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.7	
11. Identify Over spray Condition; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.8	
12. Identify Pin-holding (Coolvent Popping) Appearance in Freshly Painted Surface; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.26	
13. Identify Sags and Runs in the Paint Surface; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.10	
14. Identify Sand Scratch Swelling; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.11	
15. Identify Shrinking and Spitting While Finish Is Drying Around Prepared Area; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.12	
16. Identify That Color Is off Shade or Does Not Match; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.13	
17. Identify Type Tracking; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.14	
18. Identify Bleed Through; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.25	
19. Identify Buffing-wheel Burns on Paint Surface; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.27	
V. FINISH DEFECTS, CAUSES AND CURES			
1. Identify Poor Adhesion; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.16	
2. Check for Rust Spots on the Surface; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.18	
3. Identify Pin Holing (Solvent Popping) and Blistering Appearance in the Paint Surface; Determine the Cause(s) and Correct the Condition	PR1.2.3.4.	V.E.26	
4. Identify Finish Damage Caused by Bird Droppings, Tree Sap and Other Natural	PR1.2.3.4.	V.E.21	

DUTY AREAS AND TASKS	NOCTI COMPETENCY	NATIONAL SKILL STANDARD - NATEF	TASK COMPLETION
Causes; Correct Condition			
5. Identify Finish Damage Caused by Airborne Contaminates (Acids, Soot and Other Industrial-related Causes) and Correct the Condition	PR1.2.3.4.	V.E.22	
6. Identify Die-back Conditions (Dulling of the Paint Film Showing Haziness And/or Film Distortion Showing Shrinking) and Correct the Condition	PR1.2.3.4.	V.E.23	
7. Identify Chalking (Oxidation); Correct the Condition	PR1.2.3.4.	V.E.24	
8. Identify Body-filler Pin-holing; Correct the Condition	PR1.2.3.4.	V.E.26	
9. Identify Body-filler Bleed Through; Correct the Condition	PR1.2.3.4.	V.E.25	
W. DETAILING			
1. Apply details, transfers, tapes, wood-grains, pin-stripes, painted and taped, etc.	PR1.2.3.4.	V.F.1	
2. Buff and polish, finish to remove defects as required.	PR1.2.3.4.	V.F.2	
3. Clean interior/exterior glass	PR1.2.3.4.	V.F.3	
4. Clean body openings, door jambs and edgings, etc.	PR1.2.3.4.	V.F.4	
5. Remove overspray.	PR1.2.3.4.	V.F.5	
X. HAND WRITTEN ESTIMATE OF AUTO BODY DAMAGE			
1. Identify Procedures of Writing an Estimate	N/A	N/A	
2. Determine the Repairability of a Damaged Vehicle	N/A	N/A	
3. Make an Estimate Involving New Parts	N/A	N/A	
4. Make an Estimate on Repairing Damaged Parts	N/A	N/A	
5. Estimate Labor Cost Using Flat-rate and Overlap Labor Time	N/A	N/A	
6. Estimate Material Costs Based on Refinishing Materials List	N/A	N/A	
7. Determine the Tax on an Estimate	N/A	N/A	
8. Add, Subtract, Multiply And/or Divide to Determine Total Cost of Repairs to Be Made	N/A	N/A	

DUTY AREAS AND TASKS	NOCTI COMPETENCY	NATIONAL SKILL STANDARD - NATEF	TASK COMPLETION
Y. ESTIMATE OF AUTO BODY DAMAGE USING COMPUTER PROGRAM			
1. Identify Procedures of Writing an Estimate	N/A	N/A	
2. Determine the Repairability of a Damaged Vehicle	N/A	N/A	
3. Make an Estimate Involving New Parts	N/A	N/A	
4. Make an Estimate on Repairing Damaged Parts	N/A	N/A	
5. Estimate Labor Cost Using Flat-rate and Overlap Labor Time	N/A	N/A	
6. Estimate Material Costs Based on Refinishing Materials List	N/A	N/A	
7. Determine the Tax on an Estimate	N/A	N/A	
8. Add, Subtract, Multiply And/or Divide to Determine Total Cost of Repairs to Be Made	N/A	N/A	