

Auto Body I Course Competencies

Demonstrating Workplace Readiness Skills: Personal Qualities and People Skills

1. Demonstrate positive work ethic.
2. Demonstrate integrity.
3. Demonstrate teamwork skills.
4. Demonstrate self-representation skills.
5. Demonstrate diversity awareness.
6. Demonstrate conflict-resolution skills.
7. Demonstrate creativity and resourcefulness.

Demonstrating Workplace Readiness Skills: Professional Knowledge and Skills

8. Demonstrate effective speaking and listening skills.
9. Demonstrate effective reading and writing skills.
10. Demonstrate critical-thinking and problem-solving skills.
11. Demonstrate healthy behaviors and safety skills.
12. Demonstrate an understanding of workplace organizations, systems, and climates.
13. Demonstrate lifelong-learning skills.
14. Demonstrate job-acquisition and advancement skills.
15. Demonstrate time-, task-, and resource-management skills.
16. Demonstrate job-specific mathematics skills.
17. Demonstrate customer-service skills.

Demonstrating Workplace Readiness Skills: Technology Knowledge and Skills

18. Demonstrate proficiency with technologies common to a specific occupation.
19. Demonstrate information technology skills.
20. Demonstrate an understanding of Internet use and security issues.
21. Demonstrate telecommunications skills.

Examining All Aspects of an Industry

22. Examine aspects of planning within an industry/organization.
23. Examine aspects of management within an industry/organization.
24. Examine aspects of financial responsibility within an industry/organization.
25. Examine technical and production skills required of workers within an industry/organization.
26. Examine principles of technology that underlie an industry/organization.
27. Examine labor issues related to an industry/organization.
28. Examine community issues related to an industry/organization.
29. Examine health, safety, and environmental issues related to an industry/organization.

Addressing Elements of Student Life

30. Identify the purposes and goals of the student organization.
31. Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult.
32. Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects.
33. Identify Internet safety issues and procedures for complying with acceptable use standards.

COLLISION AND REPAIR

Preparing for Non-Structural Analysis and Damage Repair

34. Pass S/P2 (Safety Pollution and Prevention) safety exams.
35. Analyze damage to determine procedures for overall repair.
36. Remove and replace exterior trim and moldings.
37. Remove and replace interior trim and components.
38. Remove and replace non-structural body panels and components that may interfere with or be damaged during repair.

39. Remove and replace all vehicle mechanical and electrical components that may interfere with or be damaged during repair.
40. Protect panels, glass, and parts adjacent to the repair area.
41. Solvent-clean the vehicle.
42. Remove corrosion protection, undercoatings, sealers, and other protective coatings necessary to perform repairs.
43. Remove and replace repairable plastics and other components that are recommended for off-vehicle repair.
44. Identify storage procedures to prevent loss and damage to parts and materials.

Repairing the Outer Body Panel

45. Determine the extent of direct and indirect damage and direction of impact.
46. Replace bolted, bonded, and welded steel panel or panel assemblies.
47. Determine the extent of damage to aluminum body panels.
48. Remove and replace hood hinges and hood latch.
49. Remove and replace deck lid, lid hinges, and lid latch.
50. Remove and replace doors, tailgates, hatches, lift gates, latches, hinges, and related hardware.
51. Remove and replace bumper bars, covers, reinforcement guards, isolators, and mounting hardware.
52. Remove and replace front fenders, headers, and other panels.
53. Straighten damaged panels to a suitable condition for body filling or metal finishing.
54. Restore corrosion protection.
55. Remove and replace door skins.
56. Restore sound deadeners and foam materials.
57. Attach panel, using bonding material.

Applying Metal Finishing and Body Filling

58. Solvent-clean repair area.
59. Remove paint from the damaged area of a body panel.
60. Reduce surface irregularities on a damaged body panel.
61. Demonstrate hammer and dolly techniques.
62. Heat- and cold-shrink stretched panel areas to specified contour.
63. Mix body filler.
64. Shape body filler during curing.
65. Rough- and finish-sand cured body filler to contour.
66. Determine metal-finishing techniques for aluminum.
67. Determine application of body filler for aluminum.

Repairing Moveable Glass and Hardware

68. Replace window regulators, run channels, glass, power mechanisms, and related controls.
69. Repair water leaks, dust leaks, and wind noises by inspecting, repairing, and replacing weatherstripping.
70. Repair or replace removable roof panel and hinges, latches, guides, handles, retainer, and controls of sunroofs.
71. Remove and replace convertible top and related mechanisms.

Practicing Metal Welding and Cutting

72. Identify weldable and non-weldable materials used in collision repair.
73. Weld high-strength steel and other steels.
74. Weld aluminum.
75. Identify the components of a GMAW (MIG) welder.
76. Set up the GMAW (MIG) welder.
77. Identify high-pressure gas cylinder safety procedures.
78. Demonstrate the various position welds.
79. Protect adjacent panels, glass, and vehicle interior from welding and cutting operations.
80. Protect computers and other electronic control modules during welding procedures.
81. Prepare the metal to be welded.
82. Determine the joint type for various types of welds.

83. Determine the type of weld for each specific welding operation.
84. Perform continuous, stitch, tack, plug, and butt welds with and without backing, and fillet.
85. Perform destructive tests on each weld type.
86. Identify the causes of various welding defects.
87. Perform cutting operation for various materials and locations.
88. Identify different methods of attaching non-structural components.

Preparing for a Career in Auto Body Repair

89. Research opportunities in the auto body repair field.
90. Prepare portfolio of current skills.
91. Identify the basic construction of the auto body.
92. Identify additional ASE (Automotive Service Excellence) areas of certification.
93. Identify standards for structural analysis and damage repair.
94. Identify standards for non-structural analysis and damage repair (body components).
95. Identify standards for mechanical and electrical components.
96. Create a written estimate of repairs.