

# Dakota County Technical College

## ABCT 1120: Sheet Metal Repair

### A. COURSE DESCRIPTION

Credits: 5

Lecture Hours/Week: 1

Lab Hours/Week: 4

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course covers the tools and processes used for repairing minor damage on sheet metal panels. Safe and proper use of body fillers are included in this course. Prerequisites: ABCT1111

**B. COURSE EFFECTIVE DATES:** 03/12/1998 - Present

**C. OUTLINE OF MAJOR CONTENT AREAS**

**D. LEARNING OUTCOMES (General)**

1. Identify sheet metal repair safety
2. Protect adjacent panels, glass, and interior components
3. Protect adjacent vehicles
4. Identify sheet metal repair tools
5. Describe sheet metal repair tool maintenance
6. Describe sheet metal damage
7. Determine direct, indirect, hidden, and work hardened sheet metal damage.
8. Test sheet metal straightness
9. Describe sheet metal repair methods
10. Develop sheet metal damage repair plan.
11. Describe sheet metal cleaning methods
12. Use wax and grease remover.
13. Describe disc grinding techniques.
14. Perform disc grinding.
15. Perform hammer and dolly techniques.
16. Perform cold metal shrinking techniques.
17. Perform stud gun techniques.
18. Perform pry bar techniques.
19. Perform pull rod techniques.
20. Describe heat shrinking techniques.
21. Perform heat shrinking.
22. Describe porta-power equipment
23. Use porta-power equipment
24. Repair 5 low crown dents
25. Repair 5 high crown dents
26. Repair 5 style line dents.
27. Repair crease.
28. Weld torn or damaged sheet metal.
29. Identify body filler safety.
30. Demonstrate body filler safety.
31. Describe types of body fillers
32. Identify body filler tools.
33. Describe abrasive usage.
34. Describe sheet metal/body filler preparation procedures
35. Prepare sheet metal for body filler application.
36. Apply filler on 5 low crown dents.
37. Apply filler on 5 high crown dents.
38. Apply filler on 5 style line dents.
39. Apply filler on crease.
40. Describe plastic filler shaping techniques.
41. Sand filler on 5 low crown dents.
42. Sand filler on 5 high crown dents.
43. Sand filler on 5 style dents
44. Sand filler on crease.

45. Apply finishing filler on 5 low crown dents.
46. Apply finishing filer on 6 high crown dents.
47. Apply finishing filler on 5 style line dents.
48. Apply finishing filler on crease.
49. Sand finishing filler on 5 low crown dents.
50. Sand finishing filler on 5 high crown dents.
51. Sand finishing filler on 5 style line dents.
52. Sand finishing filler on crease.
53. Describe aluminum panel repair techniques.
54. Perform aluminum panel dent repair.
55. Apply filler to aluminum panel.
56. Sand filler on aluminum panel.
57. Identify corrosion causes.
58. Describe corrosion repair procedures.
59. Perform sandblasting.
60. Perform surface rust repair.
61. Describe metal patch fabrication procedures.
62. Fabricate metal patch.
63. Weld metal patch.
64. Apply filler to metal patch.
65. Sand filler on patch.
66. Describe corrosion protection equipment
67. Describe corrosion protection materials.
68. Apply corrosion protection
69. Describe seam sealers.
70. Apply seam sealers.
71. Describe noise vibration harshness (NVH) materials.
72. Restore NVH materials.

**E. Minnesota Transfer Curriculum Goal Area(s) and Competencies**

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted