

Minnesota State College Southeast

ABCT 1450: Advanced Collision Lab

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: *.*

Lab Hours/Week: 8

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This lab requires the student to take a collision damaged vehicle from the point of damage analysis through the structural repair process, exterior panel repair and replacement, refinishing, detailing, and other related mechanical and electrical repairs required to restore it to pre-accident condition. (Prerequisite: minimum of 25 technical credits) (4 Credits: 0 lec/4 lab)

B. COURSE EFFECTIVE DATES: 09/24/1998 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Disassemble and reassemble vehicle
2. Replace vehicle body panels
3. Repair structural damage
4. Reapply all factory coatings and finishes

D. LEARNING OUTCOMES (General)

1. Exhibit safe work practices
2. Exhibit professionalism
3. Complete weekly paper work
4. Participate in shop clean-up
5. Refinish vehicle
6. Organize vehicle parts
7. Order parts
8. Reinstall interior and trim parts
9. Remove interior and trim parts
10. Analyze collision damage
11. Anchor vehicle for pulling
12. Measure vehicle upper body
13. Measure full frame vehicle
14. Measure unibody vehicle underbody
15. Pull structural damage
16. Replace structural components
17. Restore corrosion protection
18. Repair damaged sheet metal
19. Repair plastic and composite body parts
20. Remove damaged parts
21. Replace glued on panel
22. Replace welded on panel
23. Replace bolt on body panel
24. Align panel gaps
25. Replace dash panel
26. Remove glued in glass
27. Install glued in glass
28. Detail vehicle
29. Aim headlamps
30. Perform final vehicle repair inspection
31. Perform road test
32. Remove mechanical and suspension components
33. Install mechanical and suspension components
34. Align wheels
35. Perform cooling system service procedures
36. Perform air conditioning service procedures
37. Repair electrical system
38. Clear air bag, anti-lock brakes, and engine codes
39. Service steering column
40. Service air bag restraint system
41. Bleed brakes
42. Complete repair process documentation
43. Maintain shop equipment

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted