

# Minnesota State College Southeast

## ABCT 1485: Collision Lab

### A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: \*.\*

Lab Hours/Week: 8

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Collision lab is designed to perform task related to collision damage involving some degree of structural analysis and repair procedures. This course is available to complete larger collision projects which may have been begun in the previous term or that are started at the beginning of the term enrolled in course. Emphasis is placed on repairing vehicle utilizing vehicle manufactures recommended repair guidelines and procedures. This course is generally taken along with other lab courses that provide time to perform the refinishing tasks, detailing, vehicle assembly, and preparation for customer delivery. (Prerequisite: 27 credits of ABCT or instructor approval) (4 credits: 0 lecture/4 lab)

**B. COURSE EFFECTIVE DATES:** 02/23/2015 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Analysis and repair plan determination for unibody structure and full frames
2. Perform vehicle preparation for structural or frame repairs
3. Perform structural repair procedures
4. Corrosion protect structural repair areas and frame repairs
5. Perform related mechanical, steering and suspension, and wheel alignment procedures
6. Document repair process

#### **D. LEARNING OUTCOMES (General)**

1. Demonstrate safe and professional practices
2. Protect sensitive electronic components and restraint systems
3. Ensure areas of the vehicle adjacent and away from repairs are protected from damage
4. Document vehicle manufacture repair procedures and structural measurements of vehicle
5. Disassemble vehicle and prepare it for measuring procedures
6. Measure vehicle structure or frame
7. Determine repair plan and identify parts needing replacement
8. Disassembly of suspension and steering systems to gain access for repairs and replacement of damaged components
9. Inspect restraint systems and identify any components needing replacement
10. Remove any mechanical components to gain access or for replacement
11. Reinstall mechanical components, suspension parts, and steering system parts
12. Perform structural repairs to vehicle manufacturer tolerances
13. Replace structural parts following manufacturer or industry approved guidelines
14. Install and adjust body panels, bumper covers, and lights to standards
15. Restore corrosion protection to all areas affected by collision damage and repair process
16. Measure wheel alignment angles and make needed adjustments
17. Complete structural repair documentations
18. Complete weekly logs
19. Participate in shop and equipment maintenance

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

None

#### **F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

#### **G. SPECIAL INFORMATION**

None noted