

# Minnesota State College Southeast

## ABCT 1245: Plastics and Composites Repair

### A. COURSE DESCRIPTION

Credits: 2

Lecture Hours/Week: 1

Lab Hours/Week: 2

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

The plastics and composites repair course provides opportunity to learn the identification of plastic and composite types and locations used on late model vehicles. Once identified repair methods available for each are presented with hands-on assignments using a variety of methods and materials available in the collision repair industry. Repairs are completed to the point of refinishing readiness. This course utilizes many resources located at various web based sights so that knowledge of future plastics and repair methods can be learned after completion of the course. (Prerequisite or concurrent: ABCT1115) (2 credits: 1 lecture/1 lab)

**B. COURSE EFFECTIVE DATES:** 02/10/2015 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Plastics and composites identification
2. Flexible, semi-flexible, and rigid plastics repairs
3. Composite parts bonding and removal
4. Fiberglass and composite parts repair methods

### D. LEARNING OUTCOMES (General)

1. Identify and demonstrate safe practices for plastic repairs
2. Determine plastic identification methods and identify assigned plastics
3. Determine repairable and non-repairable plastic vehicle parts
4. Reshape plastic parts to original contours using controlled heat
5. Identify airless welding techniques and perform repairs
6. Identify hot air and nitrogen welding methods and perform repairs
7. Identify adhesive repair methods and perform repairs
8. Identify and perform fiberglass repairs to vehicle parts and accessories
9. Examine bonded composite exterior body panel removal procedures
10. Perform bonded exterior panel repairs and replacement procedures
11. Prepare and prime plastic parts for preparation for refinishing procedures
12. Complete required assignments, quizzes, and test for course
13. Participate in shop clean-up procedures
14. Exhibit professionalism

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

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted