EMERGING TECHNOLOGIES — ABCT 2240

A. Course Description

- Credits: 2.00
- Lecture Hours/Week: 2.00
- Lab Hours/Week: 0.00
- OJT Hours/Week: 0
- Prerequisites: None
- Corequisites: None
- MnTC Goals: None

This course covers emerging automotive technologies and how they will impact the collision repair field.

B. Course Effective Dates: 12/10/10 – Present

C. Outline of Major Content Areas

As noted on course syllabus

D. Learning Outcomes

1. Describe LNG fuel vehicle
2. Describe adaptive cruise control
3. Describe adaptive lighting
4. Describe advanced high strength steel
5. Describe alternative fuel vehicle
6. Describe alternative fuel vehicle safety procedures
7. Describe aluminum usage in vehicle construction
8. Describe biofuels
9. Describe blind spot alert feature
10. Describe boron steel
11. Describe collision avoidance feature
12. Describe dual phase steel
13. Describe electric/gasoline hybrid vehicle
14. Describe event data recorder feature
15. Describe future government fuel efficiency standards
16. Describe future government mandated safety standards
17. Describe hydrogen fuel cell vehicle
18. Describe inattentive driving feature
19. Describe laminated steel
20. Describe martensitic steel
21. Describe onboard GPS/safety/theft feature
22. Describe onboard entertainment features
23. Describe onboard maintenance monitoring feature
24. Describe pedestrian avoidance feature
25. Describe plastic/composite usage in vehicle construction
26. Describe plug in hybrid vehicle
27. Describe stability control feature
28. Describe vehicle construction design
29. Describe vehicle electronic systems
30. Describe vehicle self-parking feature
31. Describe voice activated control feature
32. Research future alternative fuel vehicles
33. Research future construction methods and materials for vehicle construction
34. Research how government standards influence automotive design

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

F. Learner Outcomes Assessment

   As noted on course syllabus

G. Special Information

   None noted