Automotive Technology 7th Edition
Chapter 87 – Introduction to Electric and Hybrid Electric Vehicles
Lesson Plan

CHAPTER SUMMARY:
1. Hybrid Electric Vehicles, Electric Vehicle, History, and Efficiencies of Electric Motors and ICEs
2. Driving a Hybrid or Electric Vehicle, and Levels Hybrid Vehicles
3. Classifications of Hybrid Vehicle Powertrain, and One-, Two-, and Three- Motor Hybrid Systems
4. Advantages and Disadvantages of Electric Vehicles

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OBJECTIVES:
1. Define terms related to hybrid electric vehicles.
2. Define terms related to electric vehicles.
3. Explain the history of hybrid and electric vehicles.
4. Compare the efficiency of electric motors to internal combustion engines.
5. Describe the unique characteristics of owning or driving a hybrid or electric vehicle.
6. Discuss the levels of hybrid vehicles.
7. Describe the different powertrain configurations in a hybrid vehicle.
8. Explain the differences between one-, two-, and three-motor systems.
9. Compare the advantages and disadvantages of electric vehicles.

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RESOURCES: (All resources may be found at jameshalderman.com)
1. Task Sheet: Hybrid Electric Vehicle Nomenclature
2. Task Sheet: Types of Hybrid and Electric Vehicles
3. Crossword Puzzle and Word Search
4. Chapter PowerPoint
5. Videos: (L3) Light Duty Hybrid Electric Videos
6. Animations: (L3) Light Duty Hybrid Electric Animations

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ACTIVITIES:
1. Task Sheet: Hybrid Electric Vehicle Nomenclature
2. Task Sheet: Hybrid Regenerative Brake Systems
3. Crossword Puzzle and Word Search

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ASSIGNMENTS:
1. Chapter crossword and word search puzzles from the website.
2. Complete end of chapter quiz from the textbook.
3. Complete multiple choice and short answer quizzes downloaded from the website.

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CLASS DISCUSSION:
1. Review and group discussion chapter Frequently Asked Questions and Tech Tips sections.
2. Review and group discussion of the five (5) chapter Review Questions.

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NOTES AND EVALUATION:

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