Automotive Electrical and Engine Performance - 9th edition Ch6: Digital Storage Oscilloscopes (DSOs) Lesson Plan

CHAPTER SUMMARY:

- 1. Types of Oscilloscopes, Scope Setup and Adjustment, and DC and AC Coupling
- 2. Pulse Trains, Number of Channels, Triggers, Using a Scope, and Using DSO Accessories
- 3. Waveform Analysis

OBJECTIVES:

- 1. Explain the advantages of a digital storage oscilloscope.
- 2. Describe the process for adjusting the oscilloscope time base and voltage scale.
- 3. Explain the difference between AC and DC coupling.
- 4. Describe the different pulse train measurement scales.
- 5. Explain the purpose of a trigger.



RESOURCES: (All resources may be found at jameshalderman.com)

- 1. Task Sheet: Oscilloscope
- 2. Crossword Puzzle and Word Search
- 3. Videos: (A6) Electrical/Electronic Systems Videos
- 4. Animations: (A6) Electrical/Electronic Systems Animations



ACTIVITIES:

- 1. Task Sheet: Oscilloscope
- 2. Chapter PowerPoint
- 3. Crossword Puzzle and Word Search

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.



CLASS DISCUSSION:

- 1. Review and group discussion chapter Frequently Asked Questions and Tech Tips sections.
- 2. Ten (10) question end of Chapter Quiz.
- 3. Five (5) end of chapter <u>Review Question</u> for class discussion.



NOTES AND EVALUATION:

