# Automotive Chassis Systems 8<sup>th</sup> Edition Chapter 25 – Suspension System Components and Operation Lesson Plan

#### CHAPTER SUMMARY:

- 1. Frame Construction, Platforms, Unsprung Weight, and Types of Suspension
- 2. Hooke's Law, Coil Springs, Leaf Springs, and Torsion Bars
- 3. Suspension Principles, Steering Knuckles, Control Arms, and Ball Joints
- 4. Strut Rods, Stabilizer Bars, Shock Absorbers, Struts, and Bump Stops



#### **OBJECTIVES**:

- 1. Describe the purpose of a suspension system.
- 2. List the various types of suspensions and their component parts.
- 3. Define Hooke's law and explain how coil, leaf, and torsion bar springs work.
- 4. Describe how suspension components allow wheel movement up and down and provide for turning.
- 5. Describe how shock absorbers control spring forces.
- 6. Describe the function of bump stops.



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

- 1. Task Sheet: Suspension and Steering System Information
- 2. Task Sheet: Research Vehicle Service Information
- 3. Crossword Puzzle and Word Search
- 4. Videos: ASE A4 Suspension and Steering
- 5. Animations: ASE A4 Suspension and Steering



## ACTIVITIES:

- 1. Task Sheet: Suspension and Steering System Information
- 2. Task Sheet: Research Vehicle Service Information



## 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 <u>Frequently Asked Questions</u> and <u>Tech Tips</u> sections.
- 2. Review and group discussion of the five (5) chapter <u>Review Questions</u>.



## NOTES AND EVALUATION:

