



Automotive Technology 1 Pacing Guide

First Marking Period

- I. **General school rules and regulations**
 - A. Shop safety
 - B. Employability skills
 - C. Grading system
- II. **Hand and Power tools**
 - A. Identify common hand and power tools
 - B. Demonstrate proper use of hand and power tools
 - C. Identify safety concerns when using tools in the shop
 - D. Demonstrate proper care and maintenance of tools
 - E. Automotive Fasteners
- III. **Brake Systems**
 - A. Identifying different systems
 1. Drum type
 2. Disc type
 - B. Repair and maintenance
 1. Machining drums and rotors
 2. Installing disc brake pads
 3. Installing drum brake shoes
 - C. Brake hydraulics
 1. Master cylinders
 2. Calipers and wheel cylinders

Second Marking Period

- I. **Wheels and tires**
 - A. Identifying type and size of wheels and tires
 - B. Identifying tire problems
 - C. Mounting tires
 - D. Balancing tires
- II. **Steering and suspension**
 - A. Types of suspension systems
 1. Coil type
 2. Leaf type
 3. Strut type

4. Shock absorbers
5. Maintenance and lubrication
- B. Steering
 1. Steering column
 2. Pump
 3. Rack and pinion
 4. Recirculating ball
 - a. Tie rod ends
 - b. Pitman arm
 - c. Idler arm
 - d. Steering damper
- C. Alignment
 1. Front end
 - a. Wheel alignment angles
 - b. Sub frame alignment
 - c. Adjustment procedures
 - d. Common alignment problems
 2. Rear end
 - a. Wheel alignment angles
 - b. Adjustment procedures

Third Marking Period

I. Engine Service & Repair

A. Internal Combustion Engines

1. Engine components
 - a. Block assembly
 - b. Cylinder head
2. Engine Operation
3. Diagnose unusual engine noise or vibration problems
4. Diagnose unusual exhaust color, odor, and sound
5. Perform engine absolute (vacuum/boost) manifold pressure tests
6. Perform engine power balance test
7. Perform cylinder compression test
8. Perform cylinder leakage test
9. Access and use electronic service information (ESI)
10. Locate and interpret vehicle and major component identification numbers (VIN, vehicle certification labels, and calibration decals)

Fourth Marking Period

I. Manual Drive and Drive Axles

- A. General Drive Train Theory
- B. Clutch Diagnosis and Service
- C. Transmission/Transaxle Diagnosis and Service
- D. Drive Shaft, Half Shaft Universal and Constant Velocity (CV) Joint Diagnosis and

Service.

E. Drive Axle Diagnosis and Service.

F. 4Wheel and All Wheel Drive Systems Diagnosis and Service.

II. **Automatic Transmission and Transaxle**

A. General Automatic Transmission and Transaxle Theory.

B. Automatic Transmission and Transaxle Diagnosis.

C. Automatic Transmission and Transaxle Service.