

| C. Knowledge & Skills: | | ASE Education Foundation Tasks | |
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| (1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to: | AT7E CHP | AT7E Page # | A0 Foundation Tasks |
| HS.P.AAT.1A. demonstrate knowledge of the technical knowledge and skills related to health and safety in the workplace such as wearing safety glasses and other personal protective equipment (PPE) and maintaining safety data sheets (SDS). | 5 | 35-37 | ASE Education Shop and Personal Safety 16 tasks xEV Vehicle Safety |
| HS.P.AAT.1B identify career and employment opportunities, including entrepreneurship opportunities, internships, and industry-recognized certification requirements for the field of automotive technology. | 3 | 16-20 | ASE Education Work Habits / Ethic (see Standard 7.8) |
| HS.P.AAT.1C. demonstrate the principles of group participation, team concept, and leadership related to citizenship and career preparation. | 4 | 29-30 | ASE Education Work Habits / Ethic (see Standard 7.8) |
| HS.P.AAT.1D. apply competencies related to resources, information, interpersonal skills, problem solving, critical thinking, and systems of operation in the automotive technology industry. | 4 | 24-28 | ASE Education Personal Standards (see Standard 7.7) |
| HS.P.AAT.1E. discuss certification opportunities. | 4 | 31 | ASE Education Work Habits / Ethic (see Standard 7.8) |
| HS.P.AAT.1F. discuss response plans to emergency situations. | 4 | 31 | ASE Education Work Habits / Ethic (see Standard 7.8) |
| HS.P.AAT.1G. identify employers' expectations and appropriate work habits, ethical conduct, legal responsibilities, and good citizenship skills. | 4 | 24-30 | ASE Education Work Habits / Ethic (see Standard 7.8) |
| HS.P.AAT.1H. develop personal goals, objectives, and strategies as part of a plan for future career and educational opportunities. | 4 | 30-31 | ASE Education Work Habits / Ethic (see Standard 7.8) |
| HS.P.AAT.2A. Demonstrate effective written communication skills throughout the course, including documenting on a repair order customer concern/compliant, root cause of the failure, and corrective action to complete the repair. | 4 | 31, 32 | ASE Education Work Habits / Ethic (see Standard 7.8) |
| HS.P.AAT.2B. Estimate the cost of parts and labor on a repair orders throughout the course, including the flat rate system. | 13 | 118-120 | ASE Education Work Habits / Ethic (see Standard 7.8) |
| HS.P.AAT.2C. Demonstrate mathematical skills in performing addition, subtraction, multiplication, division, measurements using decimals and fractions in the metric and U.S. standard systems as appropriate. | 11 | 95-104 | ASE Education Work Habits / Ethic (see Standard 7.8) |

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| (3): The student demonstrates the technical knowledge and skills that form the core of knowledge of automotive service. The student is expected to: | | AT7E CHP | AT7E Page # |
| | | A0 Foundation Tasks with ASE MLR Tasks | |
| HS.P.AAT.3A: Diagnose the major components of powered vehicles. | 85 | 985-994 | Preparing for Vehicle Service |
| HS.P.AAT.3B: perform a preventative maintenance inspection of vehicle systems, including engine, fuel, lubrication, cooling, electrical, suspension, drive train, and air-conditioning system; A2 & A3 | 85 | 985-994 | Preparing for Vehicle Service |
| HS.P.AAT.3C: describe the function of the automotive chassis components, including braking, steering, transmission, drive train, and suspension systems. | 1 | 6-Mar | Preparing for Vehicle Service |
| HS.P.AAT.3D: Locate, read, and interpret document; such as: schematics, charts, diagrams, graphs, parts-catalogs, and service-repair information and technical bulletins. | 14 42 | 123-139 | A8A2. P1. IN A8 ENGINE PERFORMANCE TABLE |
| HS.P.AAT.3D PART 2 CHAPTER 130 TEKS: Locate the manufacturers recommended preventative maintenance schedule. | 14 | 123-139 | Preparing for Vehicle Service |
| HS.P.AAT.3E: Use published specifications to diagnose component wear and determine necessary repairs; | 14 | 123-139 | Preparing for Vehicle Service |
| HS.P.AAT.3E PART 2 CHAPTER 130 TEKS: Perform a preventative maintenance inspection. | 14 | 123-139 | Preparing for Vehicle Service |
| HS.P.AAT.3F: Perform common fastener and thread repair, including removing broken bolt, restoring internal and external threads, and repairing internal threads with thread insert. (ALSO IN PART 2 CHAPTER 130 TEKS: HS.P.AAT.3I) | 8 | 58-67 | Tools and Equipment |
| HS.P.AAT.3F: PART 2 CHAPTER 130 TEKS: identify the appropriate oil viscosity and capacity; | 19 | 176-186 208-213 | A1D1. P1. IN A1 ENGINE REPAIR TABLE |
| HS.P.AAT.3G: Perform precision measurements and use published specifications to diagnose component wear and determine necessary repairs. | 11 | 95-100 | A1B3. P1. IN A1 ENGINE REPAIR TABLE |
| HS.P.AAT.3G PART 2 CHAPTER 130 TEKS: Verify operation of the instrument panel engine warning indicators; | 23 54 | 249 636-637 | ASE A1A3. Verify operation of the instrument panel engine warning indicators. P1 |
| HS.P.AAT.3H: Employ critical-thinking skills and structured problem-solving skills to diagnose vehicle malfunctions, solve problems, and make decisions. | 85 | 985-988 | ASE Education Work Habits / Ethic (see Standard 7.8) |
| HS.P.AAT.3H: PART 2 CHAPTER 130 TEKS: inspect engine assembly and document findings of fuel, oil, coolant, and other leaks; | 23 | 237-239 | ASE A1A4. Inspect engine assembly for fuel, oil, coolant, and other leaks. P1 |
| HS.P.AAT.3J: PART 2 CHAPTER 130 TEKS: inspect, replace, and adjust drive belts, tensioners, and pulleys; | 52 | 595-597 | A6D2. Inspect, adjust, and replace generator (alternator) drive belts; check pulleys and tensioners for wear; check pulley and belt alignment. P1 |
| HS.P.AAT.3K PART 2 CHAPTER 130 TEKS: perform engine oil and filter change; and | 19 | 200-205 | A1D2. P1 IN A1 ENGINE REPAIR TABLE |
| HS.P.AAT.3L: PART 2 CHAPTER 130 TEKS: Explain and perform a "jump-start" of a vehicle using jumper cables and a booster battery or an auxiliary power supply according to manufacturer recommended procedures. | 48 | 553-555 | A6B6. P1 IN A6 ELECTRICAL REPAIR TABLE |

| C. Knowledge & Skills: | | ASE Education Foundation Tasks | |
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| (4) The student knows the functions and applications of the tools, equipment, technologies, and materials used in automotive technology. The student is expected to: | AT7E CHP | AT7E Page # | A0 Foundation Tasks |
| HS.P.AAT.4A: Demonstrate the proper and safe use of hand and power tools and equipment commonly employed in the maintenance and repair of vehicles. | 9 | 69-86 | Tools and Equipment |
| HS.P.AAT.4B: Discuss and demonstrate the proper handling and disposal of environmentally hazardous materials used in servicing vehicles. | 7 | 51-56 | ASE Education Work Habits / Ethic (see Standard 7.8) |
| HS.P.AAT.4C: Demonstrate proper use of diagnostic tools and equipment. | 39 | 441-455 | Tools and Equipment |
| | 40 | 457-462 | |
| | 85 | 990-993 | |
| HS.P.AAT.4D: Locate, read, and interpret service repair information such as schematics, charts, diagrams, graphs, parts catalogs, and service-repair bulletins. SIMILAR TO HS.P.AAT.3C: | 85 | 990-994 | A8A2. IN A1 ENGINE REPAIR TABLE |
| | 42 | 477-490 | |

| C. Knowledge & Skills: | | ASE Education Foundation Tasks | | | |
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| (9): The student applies the technical knowledge and skills related to actual work situations. The student is expected to: | A1 Engines in simulated or | AT7E CHP | AT7E Page # | A1 Engine Repair Tasks | |
| HS.P.AAT.2D: Research applicable vehicle and service information, vehicle service history, service precautions, and technical service bulletins. | | 13, 15 | 117-119 141-146 | A1A1. Research vehicle service information such as fluid type, internal combustion engine operation, vehicle service history, service precautions, technical service bulletins, and recalls including xEVs and vehicles equipped with advanced driver assistance systems (ADAS). P1 | |
| HS.P.AAT.3G PART 2 CHAPTER 130 TEKS: Verify operation of the instrument panel engine warning indicators; | | 23 54 | 249 636-637 | A1A3. Verify operation of the instrument panel engine warning indicators. P1 | |
| HS.P.AAT.9A: Install engine covers using gaskets, seals, and sealers as required. | | 24 | 253-261 | A1A5. Install engine covers using gaskets, seals, and sealers as required. P2 | |
| HS.P.AAT.3G: Perform precision measurements and use published specifications to diagnose component wear and determine necessary repairs. | | 11 | 95-100 | A1B3. Clean and visually inspect a cylinder head for cracks; check gasket surface areas for warpage and surface finish; check passage condition. P1 | |
| HS.P.AAT.9B: Remove and replace timing belt and verify correct camshaft timing. | | 26 33 34 | 269 388-389 396-398 | A1B6: Inspect and replace camshaft and drive belt/chain; includes checking drive gear wear and backlash, end play, sprocket and chain wear, overhead cam drive sprocket(s), drive belt(s), belt tension, tensioners, camshaft reluctor ring/tone-wheel, and valve timing components; verify correct camshaft timing. | |
| HS.P.AAT.3F: PART 2 CHAPTER 130 TEKS: identify the appropriate oil viscosity and capacity; | | 19 | 176-186 208-213 | A1D1. Identify lubrication and cooling system components and configurations. P1 | |
| HS.P.AAT.3K PART 2 CHAPTER 130 TEKS: perform engine oil and filter change; and | | 19 | 200-205 | A1D2. Perform engine oil and filter change; use proper fluid type per manufacturer specification; reset maintenance reminder as required. | |
| HS.P.AAT.9C: Perform cooling system pressure and dye tests to identify leaks, check coolant condition and level, and inspect and test radiator, pressure cap, coolant recovery tank, and heater core. | | 18 | 129-130 171-173 187-188 | A1D3: Perform cooling system pressure and dye tests to identify leaks; check coolant condition and level; inspect and test radiator, pressure cap, coolant recovery tank, heater core, gallery plugs: determine needed action. | |
| HS.P.AAT.9D: Remove, inspect, and replace thermostat and gasket or seal. 9 A1 MLR TASKS, 18 TASKS REQUIRED FOR CERTIFICATION. | | 18 24 | 176-178 253-255 | A1D8. Remove, inspect, and replace thermostat and gasket/seal. P1 | |

| C. Knowledge & Skills: | | ASE Education Foundation Tasks | |
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| (8) The student applies the technical knowledge and skills related to manual and A2 Automatic Drive Train ALL PART 2 CHAPTER 130 TEKS: and axles in simulated or actual work situations. The student is expected to: | AT7E CHP | AT7E Page # | A2 Automatic Transmissions Tasks |
| HS.P.AAT.8A. identify the different fluid types used in both an automatic and manual transmission/transaxle; | 132 | 1680 | A2A1. Research vehicle service information such as fluid type, vehicle service history, service precautions, technical service bulletins, and recalls including xEVs and vehicles equipped with advanced driver assistance systems (ADAS). P1 |
| HS.P.AAT.8B. identify the fluid types and capacity required by application using service information; | | | SAME AS HS.P.AAT.8A |
| HS.P.AAT.8C. check fluid level in a transmission or a transaxle equipped with a dip-stick; | 132 | 1680 | A2A4. Inspect transmission fluid condition; check fluid level; inspect for leaks on transmission or transaxle equipped with a dipstick. P1. |
| HS.P.AAT.8D. check fluid level in a transmission or a transaxle not equipped with a dip-stick; | 132 | 1681 | A2A5. Inspect transmission fluid condition; check fluid level; inspect for leaks on transmission or transaxle not equipped with a dipstick. P1 |
| HS.P.AAT.8E. check fluid condition and inspect for leaks; | 132 | 1685-1686 | A2A9. Diagnose fluid loss and condition concerns; determine needed action. P1. |
| HS.P.AAT.8F. drain and replace fluid and filter or filters in an automatic transmission/transaxle; | 132 | 1688-1689 | A2B2. Drain and replace fluid and filter(s); use proper fluid type per manufacturer specification. P1 |
| HS.P.AAT.8H. inspect power train mounts. 6 A2 MLR TASKS, 14 REQUIRED FOR CERTIFICATION | 124 | 1570 | A2A4. Inspect, replace/or and align powertrain mounts. P1 |

| C. Knowledge & Skills: | | ASE Education Foundation Tasks | |
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| (8) The student applies the technical knowledge and skills related to A3 Manual Drive Train and Axles ALL PART 2 CHAPTER 130 TEKS: in simulated or actual work situations. The student is expected to: | AT7E CHP | AT7E Page # | A3 Manual Drive Train & Axles Tasks |
| HS.P.AAT.8A. identify the different fluid types used in both a manual transmission/transaxle; | 122 | 1544 1560 1589-1590 | A3A1. Research vehicle service information such as fluid type, vehicle service history, service precautions, technical service bulletins, and recalls including xEVs and vehicles equipped with advanced driver assistance systems (ADAS). P1 |
| HS.P.AAT.8B. identify the fluid types and capacity required by application using service information; | | | SAME AS HS.P.AAT.8A |
| HS.P.AAT.8C. check fluid level in a transmission or a transaxle equipped with a dip-stick; | 122 | 1544 1589-1600 | A3A4. Check fluid condition; check for leaks; determine needed action. P2 |
| HS.P.AAT.8D. check fluid level in a transmission or a transaxle not equipped with a dip-stick; | 122 | 1544 1589-1600 | A3A4. Check fluid condition; check for leaks; determine needed action. P2 |
| HS.P.AAT.8E. check fluid condition and inspect for leaks; | 122 | 1544 1589-1600 | A3A4. Check fluid condition; check for leaks; determine needed action. P2 |
| HS.P.AAT.8G. drain and replace fluid in an manual transmission/transaxle; and | 122 | 1544 | A3A5. Drain and refill manual transmission/transaxle; use proper fluid type per manufacturer specification. P2 |
| HS.P.AAT.8H. inspect power train mounts. 6 A3 MLR TASKS, 14 REQUIRED FOR CERTIFICATION | 122 | 1544 | A3A6. Diagnose drive train concerns; determine needed action. P1 |

| C. Knowledge & Skills: | | ASE Education Foundation Tasks | |
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| 5 & 10 PART 2 CHAPTER 130 TEKS: The student applies the technical knowledge and skills related to A4 Suspension & Steering in simulated or actual work situations. The student is expected to: | AT7E CHP | AT7E Page # | A4 Suspension & Steering Tasks |
| HS.P.AAT.10A. PART 2 CHAPTER 130 TEKS: identify and interpret tire sidewall data information such as Department of Transportation (DOT) production date information, tire load capacity, inflation pressures, sizing description, and speed rating; | 108 110 | 1307-1308 1323-1326 | A4F1. Inspect tire condition/age; identify tire wear patterns; check for correct tire size, application (service-class, load, and speed ratings), and air pressure as listed on the tire information placard/label. P1. |
| HS.P.AAT.10B. PART 2 CHAPTER 130 TEKS: Demonstrate tire tread depth measuring procedures using industry standards such as common tread depth gauges; | 108 110 | 1307-1308 1323-1326 | A4F1. Inspect tire condition/age; identify tire wear patterns; check for correct tire size, application (service-class, load, and speed ratings), and air pressure as listed on the tire information placard/label. P1. |
| HS.P.AAT.5A: Inspect and replace power steering hoses and fittings. | 117 | 1458-1465 | A4B6. Inspect, remove, and/or replace power steering hoses and fittings. |
| HS.P.AAT.5B: Remove, clean, inspect, repack, and install wheel bearings; replace seals; install hubs; and adjust bearings. | 97 | 1132-1143 | A4D2. Inspect front and rear wheel bearings. |
| HS.P.AAT.5C: Replace wheel bearing and race. | 97 | 1132-1143 | A4D2. Inspect front and rear wheel bearings. |
| HS.P.AAT.5M: Inspect, remove, and replace front wheel drive (FWD) bearings, hubs, seals, shafts, boots, and universal/ constant velocity (CV) joints. | 97 | 1132-1143 | A5F1. Remove, clean, inspect, repack/replace, and install wheel bearings; remove and install bearing races; replace seals; install hub and adjust bearings. P1 |
| HS.P.AAT.5D: Disable and enable supplemental restraint system (SRS). | 56 | 658-659 | A6G4. Describe disabling and enabling procedures for supplemental restraint system (SRS); verify indicator lamp operation. |
| HS.P.AAT.5F: Dismount, inspect, and remount tire on wheel equipped with tire pressure monitoring system (TPMS). | 110 | 1330-1332 | A4F3. Dismount, inspect, and remount tire on wheel (with/without TPMS); balance wheel and tire assembly. P1 |
| HS.P.AAT.10 (J) Dismount and mount a tire on a wheel and reinstall the assembly, including torquing the lug nuts; and | 110 | 1330-1332 | A4F3. Dismount, inspect, and remount tire on wheel (with/without TPMS); balance wheel and tire assembly. P1 |
| HS.P.AAT.5G: Inspect rear suspension system lateral links/arms, trailing arms, leaf springs, spring insulators, shackles, brackets, center pins, and mounting bolts. | | 1397-1401 | A4C9. Inspect components of rear suspension systems (Coil, Leaf, and Torsion Beam). P1 |
| HS.P.AAT.5H: Inspect tire condition and wear patterns, check for correct size and application based on load and speed rating, and adjust air pressure. | 108 | 1307-1308 1323-1326 | A4F1. Inspect tire condition/age; identify tire wear patterns; check for correct tire size, application (service-class, load, and speed ratings), and air pressure as listed on the tire information placard/label. P1. |
| HS.P.AAT.5I: Perform pre-alignment inspection and measure vehicle ride height. | 120 | 1489-1491 | A4E2. Perform pre-alignment inspection, place vehicle in service mode as required; measure vehicle ride height. P1 |
| HS.P.AAT.5J: Inspect tire and wheel assembly for air loss. | 110 | 1323-1326 | A4F4. Inspect tire and wheel assembly for air loss; determine needed action. P1. |
| HS.P.AAT.5L: Demonstrate knowledge of steps required to remove and replace sensors in a TPMS. | 109 | 1313-1321 | A4F7. Demonstrate knowledge of steps required to remove and replace sensors (per OEM/sensor manufacturer) in a tire pressure monitoring system (TPMS). P1 |
| HS.P.AAT.10 (C) PART 2 CHAPTER 130 TEKS: Demonstrate tire and wheel balance such as static and dynamic balance, and proper wheel weight selection; | 110 | 1329-1332 | A4F8. Perform Road Force balance/match mounting. P3 |
| HS.P.AAT.10D. PART 2 CHAPTER 130 TEKS: Demonstrate tire and wheel measurements such as radial and lateral run-out in tire and wheel assembly; AST/MAST TASK | 110 | 1329-1330 | A4F10. Measure wheel, tire, axle flange, and hub runout; determine needed action. P2 |
| HS.P.AAT.10E. PART 2 CHAPTER 130 TEKS: inspect steering linkage components and mounts such as inner and outer tie-rod ends, pitman arm, idler arm, inner rack and pinion ends, rack and pinion mounts, upper and lower ball joints, power steering pump, and hoses for leaks; | 116 | 1433-1440 | A4B7. Inspect, remove, and/or replace pitman arm, relay (center link/intermediate) rod, idler arm, mountings, and steering linkage damper. P3 |
| HS.P.AAT.10E. PART 2 CHAPTER 130 TEKS: 2 ASE MLR TASKS IN 10E | 116 | 1433-1440 | A4B8. Inspect, replace, and/or adjust tie rod ends (sockets), tie rod sleeves, and clamps (non-rack and pinion). P3. |
| HS.P.AAT.10F. PART 2 CHAPTER 130 TEKS: Remove, clean, inspect, and repack wheel bearings, properly install wheel seals, and adjust wheel bearing pre-load; | 97 | 1132-1143 | A4D2. Inspect, service, and/or replace front and rear wheel bearings. P1 |

| C. Knowledge & Skills: | | ASE Education Foundation Tasks | |
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| 5 & 10 PART 2 CHAPTER 130 TEKS: The student applies the technical knowledge and skills related to A4 Suspension & Steering in simulated or actual work situations. The student is expected to: | AT7E CHP | AT7E Page # | A4 Suspension & Steering Tasks |
| HS.P.AAT.10G. PART 2 CHAPTER 130 TEKS: Inspect shock absorbers and McPherson struts for leakage and performance using jounce and rebound tests; | 112 | 1380-1382 | A4C8. Inspect, remove, and/or replace strut assembly, strut coil spring, insulators, and upper strut bearing mount. P1 |
| HS.P.AAT.10G. PART 2 CHAPTER 130 TEKS: 2 ASE MLR TASKS IN 10G | 113 | 1398 | A4D1. Inspect, remove, and/or replace shock absorbers; inspect mounts and bushings. P1. |
| HS.P.AAT.10H. PART 2 CHAPTER 130 TEKS: Demonstrate wheel stud replacement and installation of wheel and tire assembly with proper torquing procedure; | 110 | 1327-1329 | NOT A 2024 ASE Education task. A4F2. Rotate tires according to manufacturer's recommendation including vehicles equipped with tire pressure monitoring systems (TPMS). P1 |
| HS.P.AAT.10I. PART 2 CHAPTER 130 TEKS: Identify and test the Tire Pressure Monitoring Systems (TPMS), both the direct and indirect, for proper operation; | 109 | 1310-1315 | A4F6. Identify indirect and direct tire pressure monitoring systems (TPMS); calibrate/relearn system; verify operation of instrument panel lamps. P1 |
| HS.P.AAT.10K. PART 2 CHAPTER 130 TEKS: Rotate tires according to manufacturer recommendations. 24 A4 MLR TASKS, 37 TASKS NEEDED FOR CERTIFICATION | 110 | 1327-1329 | A4F2. Rotate tires according to manufacturer's recommendation including vehicles equipped with tire pressure monitoring systems (TPMS). P1 |

| C. Knowledge & Skills: | | ASE Education Foundation Tasks | |
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| (5 PART 2 CHAPTER 130 TEKS & 7) The student applies the technical knowledge and skills related to A5 BRAKES in simulated or actual work situations. The student is expected to: | | AT7E CHP | AT7E Page # |
| | | A5 Brakes | |
| HS.P.AAT.5A: PART 2 CHAPTER 130 TEKS: Explains Pascal's Theory of Hydraulics as it relates to the brake system; | 95 | 1088-1091 | A5B1. Demonstrate knowledge of hydraulic principles (Pascal's law). |
| HS.P.AAT.5B: PART 2 CHAPTER 130 TEKS: inspect brake system components, including master cylinder, brake lines, wheel cylinders, calipers, and flexible hoses and fittings, for external leaks and proper operation; | 96 | 1113-1117 | A5B4. Inspect brake lines, flexible hoses, and fittings for leaks, dents, kinks, rust, cracks, bulging, wear, and loose fittings/supports. P1 |
| HS.P.AAT.5C: PART 2 CHAPTER 130 TEKS: inspect, measure, and refinish brake drum diameter to manufacturer specifications; | 103 | 1208-1215 | A5C2. Refinish brake drum and measure final drum diameter; compare with specification. P3 |
| HS.P.AAT.5D: PART 2 CHAPTER 130 TEKS: remove, clean, and inspect brake shoes, springs, pins, clips, levers, adjusters/self-adjusters, other related brake hardware, and backing support plates; | 99 | 1158-1165 | A5C3. Remove, clean, inspect, and/or replace brake shoes, springs, pins, clips, levers, adjusters/self-adjusters, other related brake hardware, and backing support plates; lubricate and reassemble. P3 |
| HS.P.AAT.5E: PART 2 CHAPTER 130 TEKS: Lubricate, reassemble, and pre-adjust brake shoes and parking brake; | 99 | 1163-1165 | A5C5. Pre-adjust brake shoes and parking brake; install brake drums or drum/hub assemblies and wheel bearings; perform final checks and adjustments.P3 |
| HS.P.AAT.5F: PART 2 CHAPTER 130 TEKS: Remove, inspect for damage or wear, clean, lubricate, and reassemble pads and retaining hardware, caliper assembly, and mounting components such as slides and pins for proper operation; | 100 | 1175-1180 | A5D4. Lubricate and reinstall caliper, brake pads, and related hardware; seat brake pads against rotor; inspect for leaks. P1 |
| HS.P.AAT.5G PART 2 CHAPTER 130 TEKS: Refinish a rotor on and off a vehicle and measure final rotor thickness with manufacturer specifications; | 103 | 1208-1226 | A5D8. Refinish rotor off vehicle; measure final rotor thickness and compare with specification. P3 |
| HS.P.AAT.5H: PART 2 CHAPTER 130 TEKS: retract and re-adjust caliper piston on an integral parking brake system; | 100 | 1181-1182 | A5D9. Retract and re-adjust caliper piston on an integrated parking brake system. P2 |
| HS.P.AAT.5I: PART 2 CHAPTER 130 TEKS: check brake pedal travel with, and without, engine running to verify proper power booster operation; | 104 | 1249-1255 | A5E1. Check brake pedal travel with and without engine running to verify proper power booster operation. P2 |
| HS.P.AAT.5J: PART 2 CHAPTER 130 TEKS: check brake pedal travel with, and without, engine running to verify proper power booster operation; DUPLICATE OF HS.P.AAT.5I: | 104 | 1249-1255 | A5E1.P2 |
| HS.P.AAT.5K: PART 2 CHAPTER 130 TEKS: check vacuum supply from a manifold or auxiliary pump to vacuum-type brake power booster; and TASK NOT FOUND IN 2024 ASE Education TASK LIST | 104 | 1247 | TASK NOT FOUND IN THE 2024 ASE Education TASK LIST |
| HS.P.AAT.5L: PART 2 CHAPTER 130 TEKS: describe the operation of a regenerative braking system. | 91 | 1053-1055 | A5G2. Describe the operation of a regenerative braking system. P3 |
| HS.P.AAT.7A: Describe procedure for performing a road test to check brake system operation, including an anti-lock brake system (ABS). | 101 | 1158 1184 1273 | A5A6. Describe procedure for performing a road test to check brake system operation, including an anti-lock brake system (ABS). P1 |
| HS.P.AAT.7B: Measure brake pedal height, reserve distance, travel, and free play. | 104 | 1249-1255 | A5B2. Describe proper brake pedal height, travel, and feel. P1 (DISCUSS ONLY) |
| HS.P.AAT.7C: Identify components of brake warning light system. | 95 | 1099-1102 | A5B8. Identify components of brake warning light system. P2. |
| HS.P.AAT.7D: Bleed and flush brake system. | 96 | 1118-1127 | A5B6. Bleed and/or replace fluid in the brake system. P1. |
| HS.P.AAT.7E: Identify and check the operation of brake stop light system. | 95 | 1099-1102 | A5B6. Identify, inspect, test, and replace components of brake warning light system. P2 |
| HS.P.AAT.7F: Identify traction control and vehicle stability control system components. | | 1261-1268 | A5G1. Identify and inspect electronic brake control system components and describe function (ABS, TCS, ESC); determine needed action. P1 |
| 17 A5 MLR TASKS, 39 REQUIRED FOR CERTIFICATION. | 105 | 1283-1289 | |

| C. Knowledge & Skills: | | ASE Education Foundation Tasks | |
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| (6) The student applies the technical knowledge and skills related to A6 Electrical Systems in simulated or actual work situations. The student is expected to: | | AT7E CHP | AT7E Page # |
| | | A6 Electrical Repair | |
| HS.P.AAT.6A PART 2 CHAPTER 130 TEKS: demonstrate knowledge of electrical/electronic series, parallel, and series-parallel circuits using principles of electricity as defined by Ohm's Law; ALSO HS.P.AAT.4D: | 38 | 430-438 | A6A5. Demonstrate knowledge of electrical/electronic series, parallel, and series-parallel circuits using principles of electricity (Ohm's Law). P1 |
| HS.P.AAT.6D & A PART 2 CHAPTER 130 TEKS: Demonstrate knowledge of the causes and effects from shorts, opens, and resistance in electrical/electronic circuits. | 37 | 424-426 | A6A7. Demonstrate knowledge of the causes and effects from shorts, grounds, opens, and resistance problems in electrical/electronic circuits. |
| HS.P.AAT.6B PART 2 CHAPTER 130 TEKS: demonstrate proper use of a Digital Multimeter (DMM) when measuring source voltage, voltage drop, current flow, resistance, and ground circuits; | 37 | 424-426 442-455 | A6A6. Demonstrate proper use of a digital multimeter (DMM) when measuring source voltage, voltage drop (including grounds), current flow and resistance. P1 |
| HS.P.AAT.6B: Measure key-off battery drain/parasitic draw. | 48 | 554-555 | A6A11. Diagnose the cause(s) of excessive key-off battery drain (parasitic draw); determine needed action. P1 |
| HS.P.AAT.6C PART 2 CHAPTER 130 TEKS:: use wiring diagrams to trace electrical/electronic circuits; | 42 | 477-483 | A6A10. Use wiring diagrams during the diagnosis of electrical/electronic circuit problems. P1 |
| HS.P.AAT.6C: Perform solder repair of electrical wiring. | 41 | 471-474 | A6A13. Inspect, test, repair, and/or replace components, connectors, terminals, harnesses, and wiring in electrical/electronic systems (including solder repairs); determine needed action. P1 |
| HS.P.AAT.6D: Replace electrical connectors and terminal ends. | 41 | 471-474 | PART OF A6A13. P1 |
| HS.P.AAT.6E PART 2 CHAPTER 130 TEKS: confirm proper battery capacity for vehicle application and perform battery capacity test; | 48 | 548-550 | A6B2. Confirm proper battery capacity for vehicle application; perform battery capacity and load test; determine needed action. P1 |
| HS.P.AAT.6E: Demonstrate the ability to maintain or restore electronic memory functions. | 48 | 555-556 | A6B3. Maintain or restore electronic memory functions as recommended by manufacturer. P2 |
| HS.P.AAT.6F PART 2 CHAPTER 130 TEKS: perform battery state-of-charge test; | 48 | 548 | A6B1. Perform battery state-of-charge test; determine needed action. P1. |
| HS.P.AAT.6F: Perform slow and fast battery charges according to manufacturer recommendations. | 48 | 551-552 | A6B5. Perform battery charging according to manufacturer's recommendations. P1 |
| HS.P.AAT.6G PART 2 CHAPTER 130 TEKS: inspect and clean the battery, fill battery cells, and check battery cables, connectors, clamps, and hold-downs; | 48 | 547 | A6B4. Inspect and clean battery; check battery cables, connectors, clamps, and hold-downs. P1. |
| HS.P.AAT.3L: PART 2 CHAPTER 130 TEKS:: Explain and perform a "jump-start" of a vehicle using jumper cables and a booster battery or an auxiliary power supply according to manufacturer recommended procedures. | 48 | 553-555 | A6B6. Jump-start vehicle using jumper cables and a booster battery or an auxiliary power supply according to manufacturer's recommendations. P1 |
| HS.P.AAT.6G: Identify electronic modules, security systems, radios, and other accessories that require re-initialization or code entry after reconnecting a vehicle battery. | 48 | 556-557 | A6B7. Identify electrical/electronic modules, security systems, radios, and other accessories that require reinitialization or code entry after reconnecting vehicle battery. P2 |
| HS.P.AAT.6H: Perform starter current draw test and starter circuit voltage drop tests and inspect and test starter relays and solenoids. | 50 | 574-575 | A6C1. Perform starter current draw tests; determine needed action.P1 |
| HS.P.AAT.6I PART 2 CHAPTER 130 TEKS: inspect and test fusible links, circuit breakers, fuses, and relays; | 41 | 466-471 | A6A12. Inspect and test fusible links, circuit breakers, and fuses; determine needed action. P2. |
| HS.P.AAT.6I: Remove and install a starter in a vehicle. | 50 | 575-576 | A6C4. Remove and install starter in a vehicle. P1 |
| HS.P.AAT.6J: Inspect and test switches, connectors, and wires of starter control circuits. | 50 | 574 | A6C5. Inspect and test switches, connectors, and wires of starter control circuits; determine needed action. P1 |
| HS.P.AAT.6K PART 2 CHAPTER 130 TEKS: inspect, adjust, or replace generator/alternator drive belts and check pulleys and tensioners for wear and belt alignment; | 52 | 594-597 | A6D2. Inspect, adjust, and/or replace generator (alternator) drive belts; check pulleys and tensioners for wear; check pulley and belt alignment; determine needed action. P1. |
| HS.P.AAT.6K: Perform charging system output test. | 52 | 599-600 | A6D1. Perform charging system output test; determine needed action. P1 |
| FOUND IN HS.P.AAT.3J | 52 | 595-597 | A6D2. P1 |

| C. Knowledge & Skills: | | ASE Education Foundation Tasks | |
|--|-------------|--------------------------------|--|
| (6) The student applies the technical knowledge and skills related to A6 Electrical Systems in simulated or actual work situations. The student is expected to: | AT7E CHP | AT7E Page # | A6 Electrical Repair |
| HS.P.AAT.6L PART 2 CHAPTER 130 TEKS: verify operation of instrument panel gauges and warning/indicator lights, and reset maintenance indicators; | 54 | 631 635-637 | A6F1. Verify operation of instrument panel gauges and warning/indicator lights; reset maintenance indicators as required. P1 |
| HS.P.AAT.6L: Remove, inspect, and re-install alternator. | 52 | 600-601 | A6D3. Remove, inspect, and/or replace generator (alternator); determine needed action. P1 |
| HS.P.AAT.6M: PART 2 CHAPTER 130 TEKS:: inspect interior and exterior lamps and sockets, including headlights and auxiliary light such as fog and driving lights and replace as needed; and | 53 | 610-613 615-619 | A6E1. Inspect interior and exterior lamps and sockets including headlights and auxiliary lights (fog lights/driving lights); determine needed action. P1 |
| HS.P.AAT.6M: Identify system voltage and safety precautions associated with high-intensity discharge headlights | 53 | 610-613 615-619 | A6E1. P1 |
| HS.P.AAT.6N PART 2 CHAPTER 130 TEKS:: verify windshield wiper and washer operation and replace wiper blades as needed. | 57 | 666-672 | A6G5. Verify windshield wiper and washer operation; replace wiper blades. P1 |
| HS.P.AAT.6N: Disable and enable airbag system for vehicle service and verify indicator lamp operation. | 56 | 658-659 | A6G4. Describe disabling and enabling procedures for supplemental restraint system (SRS); verify indicator lamp operation. P1 |
| HS.P.AAT.6O: Remove and reinstall a door panel. | 57 | Not Covered | A6G2. Remove and reinstall door panel. P2 |
| HS.P.AAT.6P: Describe the operation of keyless entry and remote-start systems. 29 A6 MLR TASKS, 39 REQUIRED FOR CERTIFICATION. | 57 | 648-649 686-690 | A6G3. Diagnose operation of security/anti-theft systems and related circuits (such as: theft deterrent, door locks, remote keyless entry, remote start, and starter/fuel disable); determine needed action. P1 |