UTAH ATE SKILL CERTIFICATION

AUTOMOTIVE SERVICE TECHNICIAN

STUDENT PERFORMANCE EVALUATION

ASE BRAKES

Student Name: _____

The performance evaluation is a required component of the Skill Certification process. Each student **must be evaluated** on the required performance standards. Performance standards may be completed and **evaluated anytime during the course**.

- Students should be aware of their progress throughout the course, so that they can concentrate on the objectives that need improvement.
- Students should be encouraged to repeat the objectives until they have performed at a minimum of a number 1 or 2 on the rating scale (moderately to highly competent level).

1= highly competent	Successfully demonstrated without supervision
2= moderately competent	Successfully demonstrated with limited supervision
3= limited competence	Demonstrated with close supervision
4= not competent	Demonstration requires direct instruction and supervision

- When a standard has been achieved at a minimum of 80% (moderately to highly competent level). "Y" (Y=YES) is recorded on the last line of that standard, on the performance evaluation sheet. If a student does not achieve a 1 or a 2 (moderately to highly competent level), then "N" (N=NO) is recorded on the last line of that standard.
- All performance standards MUST be completed and evaluated prior to the written test.
- The **teacher** will bubble in "A" on the answer sheet for item #81 for students who have achieved "Y" on **ALL** performance standards.
- The **teacher** will bubble in "B" on the answer sheet for item #81 for students who have **ONE or more "N's"** on the performance standards.
- The signed performance evaluation sheet(s) **MUST** be kept in the teachers' file for two years.
- A copy is also kept on file with the school's ATE Skill Certification testing coordinator for two years.

Students who achieve a 1 or a 2 (moderately to highly competent) on **ALL** performance standards and 80% on the written test will be issued an ATE Skill Certificate.

470634 Students will be able to understand general shop safety	**1**	**2**	**3**	**4**
Pass the safety test with a score of 100%.				
Identify the different types and hazards of solvents used in automotive.				
Identify the different types, purposes, and hazards of automotive greases, oils, and additives.				
Identify precautions in the use, handling, and storage of various automotive solvents, cleaners, oils, greases, and additives.				
Identify the gasses encountered in the automotive field and the hazards they present.				
Identify the hazards and control of asbestos dust.				
Comply with safety rules for working with automotive chemicals (MSDS).				

470634 Students will be able to understand general brake systems diagnosis.	**1**	**2**	**3**	**4**
Complete work order to include customer information, vehicle identifying information, customer concern, related service history, cause, and correction. P-1				
Identify and interpret brake system concern; determine necessary action. P-1				
Research applicable vehicle and service information, such as brake system operation, vehicle service history, service precautions, and technical service bulletins. P-1				
Locate and interpret vehicle and major component identification numbers (VIN, vehicle certification labels, calibration decals). P-1				

470634 Students will be able to understand, identify, and properly diagnosis and repair hydraulic system problems.	**1**	**2**	**3**	**4**
Diagnose pressure concerns in the brake system using hydraulic principles (Pascal's Law). P-1				
Measure brake pedal height, travel, and free play (as applicable); determine necessary action. P-2				
Check master cylinder for internal and external leaks and proper operation; determine necessary action. P-2				
Remove, bench bleed, and reinstall master cylinder. P-1				
Diagnose poor stopping, pulling or dragging concerns caused by malfunctions in the hydraulic system; determine necessary action. P-1				
Inspect brake lines, flexible hoses, and fittings for leaks, dents, kinks, rust, cracks, bulging or wear; tighten loose fittings and supports; determine necessary action. P-2				
Inspect flexible brake hoses for leaks, kinks, cracks, bulging or wear; tighten loose fittings and supports. P-2				
Fabricate brake lines using proper material and flaring procedures (double flare and ISO types). P-2				
Select, handle, store, and fill brake fluids to proper level. P-1				
Inspect, test, and/or replace metering (hold-off), proportioning (balance), pressure differential, and combination valves. P-3				
Inspect, test, and/or replace components of brake warning light system. P-3				
Bleed and /or flush brake system. P-1				
Test brake fluid for contamination. P-1				

470634 Students will be able to understand, identify, and properly diagnosis and repair drum brakes.	**1**	**2**	**3**	**4**
Diagnose poor stopping, noise, vibration, pulling, grabbing, dragging or pedal pulsation concerns; determine necessary action. P-1				
Remove, clean, inspect, and measure brake drums; determine necessary action. P-1				
Refinish brake drum; measure final drum diameter. P-1				
Remove, clean, and inspect brake shoes, springs, pins, clips, levers, adjusters/self-adjusters, other related brake hardware, and backing support plates; lubricate and reassemble. P-1				
Remove and reinstall wheel cylinders. P-2				
Pre-adjust brake shoes and parking brake; install brake drums or drum/hub assemblies and wheel bearings. P-2				
Install wheel, torque lug nuts, and make final checks and adjustments. P-1				

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	470634 Students will be able to understand, identify, and properly diagnosis and repair disc brakes.	1	2	3	4
	Diagnose poor stopping, noise, vibration, pulling, grabbing, dragging or pedal pulsation concerns; determine necessary action. P-1				
	Remove caliper assembly; inspect for leaks and damage to caliper housing; determine necessary action. P-1				
	Clean and inspect caliper mounting and slides/pins for operation, wear, and damage; determine necessary action. P-1				
	Remove, inspect, and replace pads and retaining hardware; determine necessary action. P-1				
	Disassemble and clean caliper assembly; inspect parts for wear, rust, scoring, and damage; replace seal, boot, and damaged or worn parts. P-3				
	Reassemble, lubricate, and reinstall caliper, pads, and related hardware; seat pads, and inspect for leaks. P-1				
	Clean, inspect, and measure rotor thickness, lateral runout, and thickness variation; determine necessary action. P-1				
	Remove and reinstall rotor. P-1				
	Refinish rotor on vehicle; measure final rotor thickness .P-1				
	Refinish rotor off vehicle; measure final rotor thickness. P-1				
	Retract caliper piston on an integrated parking brake system. P-3				
	Install wheel, torque lug nuts, and make final checks and adjustments. P-1				
	Check brake pad wear indicator system operation; determine necessary action. P-2				

	470634 Students will be able to understand, identify, and properly diagnosis and repair power assist units.	1	2	3	4
	Test pedal free travel; check power assist operation. P-2				
	Check vacuum supply to vacuum-type power booster. P-1				
	Inspect the vacuum-type power booster unit for leaks; inspect the check valve for proper operation; determine necessary action. P-1				
	Inspect and test hydraulically assisted power brake system for leaks and proper operation; determine necessary action. P-3				
	Measure and adjust master cylinder pushrod length. P-3				

	470634 Students will be able to understand, identify, and properly diagnosis and repair miscellaneous (wheel bearings, parking brakes, electrical, etc.)	1	2	3	4
	Diagnose wheel bearing noises, wheel shimmy, and vibration concerns; determine necessary action. P-1				
	Remove, clean, inspect, repack, and install wheel bearings and replace seals; install hub and adjust bearings. P-1				
	Check parking brake cables and components for wear, binding, and corrosion; clean, lubricate, adjust, or replace as needed. P-2				
	Check parking brake and indicator light system operation; determine necessary action. P-1				
	Check operation of brake stop light system; determine necessary action. P-1				
	Replace wheel bearing and race. P-2				
	Inspect and replace wheel studs. P-1				
	Remove and reinstall sealed wheel bearing assembly. P-1				

	470634 Students will be able to understand, identify, and properly diagnosis electronic brake, traction and stability control systems.	1	2	3	4
	Identify and inspect electronic brake control system components; determine necessary action. P-1				
	Diagnose poor stopping, wheel lock-up, abnormal pedal feel, unwanted application, and noise concerns associated with the electronic brake control system; determine necessary action. P-2				
	Diagnose electronic brake control system electronic control(s) and components by retrieving diagnostic trouble codes and/or using recommended test equipment; determine necessary action. P-1				
	Depressurize high-pressure components of the electronic brake control system. P-3				
	Bleed the electronic brake control system hydraulic circuits. P-1				
	Remove and install electronic brake control system electrical/electronic and hydraulic components. P-3				
	Test, diagnose and service electronic brake control system speed sensors (digital and analog), toothed ring (tone wheel), and circuits using a graphing multi-meter (GMM)/digital storage oscilloscope (DSO) (includes output signal, resistance, shorts to voltage/ground, and frequency data). P-1				
	Diagnose electronic brake control system braking concerns caused by vehicle modifications (tire size, curb height, final drive ratio, etc.). P-3				
	Identify traction control/vehicle stability control system components. P-3				
	Describe the operation of a regenerative braking system. P-3				

	470634 Students will be able to understand the importance of employability and work habits.	1	2	3	4
	Integrity				
	Punctuality				
	Staying on task				
	Productive team worker				
	Leadership				

The instructor must retain a copy of this Student Performance Evaluation for two years after the student has left the program.

Instructor Signature: _____ Date: _____

Student Signature: _____ Date : _____

School: _____