Student Name

High School or Vocational Center

COMPETENCY RECORD FOR ARTICULATION

Baker College

Please check below each skill the student has mastered with a minimum of 80 percent accuracy or with an A or B grade.

AST111A INTRODUCTION TO AUTOMOTIVE ELECTRICAL

Task	Satisfactory	Unsatisfactory
Students will demonstrate understanding and mastery of the following concepts and/or tasks:		
Identify and define introductory concepts of electricity.		
Interpret and describe basic terminology and/or elements of electrical and electronic systems including, but not limited to a simple circuit.		
Interpret and describe basic terminology and/or elements of electrical and electronic systems including, but not limited to voltage.		
Interpret and describe basic terminology and/or elements of electrical and electronic systems including, but not limited to current.		
Interpret and describe basic terminology and/or elements of electrical and electronic systems including, but not limited to resistance.		
Interpret and describe basic terminology and/or elements of electrical and electronic systems including, but not limited to series circuits.		
Interpret and describe basic terminology and/or elements of electrical and electronic systems including, but not limited to parallel circuits.		
Interpret and describe basic terminology and/or elements of electrical and electronic systems including, but not limited to series-parallel circuits.		
Demonstrate knowledge of working safely with electrical/electronic components on a vehicle.		
Diagnose electrical/electronic integrity of series, parallel, and series-parallel circuits using Ohm's law.		
Demonstrate the ability to use wiring diagram/s during diagnosis of electrical circuit problems.		
Demonstrate the proper use of a digital multimeter (DMM) during diagnosis of electrical circuit problems.		

Task	Satisfactory	Unsatisfactory
Measure source voltage and perform voltage drop tests in electrical/electronic circuits using a voltmeter; determine necessary action.		
Demonstrate how to check electrical circuits with a test light; determine necessary action/s.		
Measure current flow in electrical/electronic circuits and components using an ammeter; determine necessary action.		
Demonstrate how to check continuity and measure resistance in electrical/electronic circuits and components using an Ohmmeter; determine necessary action.		
Demonstrate how to check electrical circuits using fuse jumper wires; determine necessary action.		
Locate shorts, grounds, opens, and resistance problems in electrical/electronic circuits; determine necessary action.		
Measure and diagnose the cause(s) of excessive key-off battery drain (parasitic draw); determine necessary action.		
Inspect and test fusible links, circuit breakers, and fuses; determine necessary action.		
Inspect and test switches, connectors, relays, solid state devices, and wires of electrical/electronic circuits; perform necessary action.		
Demonstrate how to repair wiring harnesses and connectors including can/bus systems.		
Practice solder repair of electrical wiring and connections.		
Interpret and identify electrical/electronic system concerns; determine necessary action.		
Research applicable vehicle and service information, such as electrical/electronic system operation, vehicle service history, service precautions, and technical service bulletins.		
Locate and interpret vehicle and major component identification numbers (VIN, vehicle certification labels, and certification decals.)		

Teacher signature _____ Date _____