**Program Assessment Data Report**

**Program: Automotive Technology\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Terms Data Collected: Fall 2021-Fall 2022**

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| Program-Level Learning Outcome- (From Assessment Plan) | Assessment Measure(s) and Where Implemented in Curriculum – (From Assessment Plan) | Targets- Level of Success Expected-(From Assessment Plan) | Assessment Results – (Provide Data in a form related to targeted levels of success to left. Indicate if Targeted level of success was met, partially met, or not met.) |
| PLO #1  Students will be able to apply repair facility safety protocols, classify the eight Automotive Service Excellence (ASE) light vehicle subsystems, utilize service information systems, and perform basic light vehicle maintenance. | Students are to perform a final lab assessment in AUMT 1305 in which they will perform a preventative maintenance inspection that requires them to identify various light vehicle sub-systems and components while exercising relevant safety protocols. | 70% of students score 80% or more on the rubric for lab assignments. | Target met.  83.5% of students scored 80% or better on the rubric for lab assignments. |
| PLO #2  Students will be able to perform maintenance, diagnosis, and repair of hydraulic and mechanical brake systems, perform resurfacing of drums and rotors with current industry-standard equipment. | Students are to perform a final lab assessment in AUMT 1410 in which they will perform the removal, resurfacing, and reinstallation of light vehicle brake rotors to include the removal and proper reinstallation of the hydraulic brake caliper and friction pads. | 70% of students score 70% or more on the rubric for lab assignments. | Target met.  73.1% of students scored 70% or better on the rubric for lab assignments. |
| PLO #3  Students will be able to perform maintenance, diagnosis, and repair of steering and suspension systems, operate industry standard 4-wheel alignment equipment and determine required adjustments or repairs, and operate industry standard tire service and repair equipment and execute repair procedures. | Students are to perform a final lab assessment in AUMT 1316 in which they will perform a light vehicle 4 wheel-alignment inspection in which they will be required to determine alignment symptoms and required adjustments. Students will then perform required adjustments to vehicle manufacturer specifications. | 70% of students score 70% or more on rubric for lab assignments. | Target met.  94.8% of students scored 70% or better on the rubric for lab assignments. |
| PLO #4  Students will be able to implement relevant safety procedures including proper refrigerant handling in accordance with Environmental Protection Agency (EPA) Clean Air Act 609 guidelines and requirements, and perform maintenance, diagnosis, and repair of light vehicle climate control systems. | Students will perform a final lab assessment in AUMT 1345 in which they will perform diagnosis of a light vehicle air conditioning system followed by a refrigerant evacuation and recharge using industry standard equipment to EPA 609 standards. | 70% of students score 80% or more on rubric for lab assignments. | Target met.  79.4% of students scored 80% or better on the rubric for lab assignments. |
| PLO #5  Students will be able to perform diagnosis, maintenance, and repair of light vehicle manual and automatic transmissions/transaxles, perform diagnosis, maintenance, and repair of light vehicle differentials, and perform diagnosis, maintenance, and repair of light vehicle constant velocity joints and universal joints. | Students will perform a final lab assessment in AUMT 2325 in which they will overhaul a light vehicle constant velocity axle. | 70% of students score 70% or more on rubric for lab assignments. | Target met.  98.2% of students scored 70% or better on the rubric for lab assignments. |
| PLO #6  Students will be able to explain and identify light vehicle gasoline engine operating principles, perform diagnosis, maintenance, and repair of light vehicle gasoline engine mechanical, lubrication, and cooling systems. | Students will perform a final lab assessment in AUMT 1319 in which they will complete a light vehicle engine cylinder compression test, cylinder leakage test, engine vacuum test, and cooling system pressure test to be used to determine mechanical faults. | 70% of students score 70% or more on rubric for lab assignments. | Target met.  93.75% of students scored 70% or better on the rubric for lab assignments. |
| PLO #7  Students will be able to identify and perform diagnosis, and repair of light vehicle electrical, accessory, and instrumentation systems, apply knowledge of electronics principles to the diagnosis of light vehicle microcomputers, analysis of network and communication circuits, and interpretation of sensor data from various light vehicle subsystems. | Students will perform a final lab assessment in AUMT 2337 in which they will demonstrate proper diagnostic application and operation of a digital storage oscilloscope (DSO). Students will then apply the data obtained from the DSO to determine the required diagnostic operations of a light vehicle computer-controlled system. | 70% of students score 70% or more on rubric for lab assignments. | Target met.  100% of students scored 70% or better on the rubric for lab assignments. |
| PLO #8  Students will be able to explain gasoline engine performance dynamics, perform diagnosis and repair of emissions control systems, computerized engine performance systems, and advanced ignition and fuel delivery systems, and utilize advanced engine performance diagnostic equipment. | Students will perform a final lab assessment in AUMT 2334 in which they will retrieve vehicle data using a diagnostic scan tool. Students will then interpret the data to determine and diagnose light vehicle fuel, ignition, and emissions control system faults. | 70% of students score 70% or more on rubric for lab assignments. | Target met.  76.9% of students scored 70% or better on the rubric for lab assignments. |
| PLO #9  Students will be able to use hybrid and/or Battery Electric Vehicle (BEV) safety procedures, explain the operation of hybrid and/or BEV vehicles, and diagnose and repair hybrid and/or BEV systems. | Students will perform a final lab assessment in AUMT 2307 in which they will demonstrate the procedure for rendering and confirming a Hybrid and/or Battery Electric Vehicle high voltage system safe for service and repair. | 70% of students score 70% or more on rubric for lab assignments. | AUMT 2307 has yet to be taught; therefore, there is no data to be collected for the specified period. |