# Engine Performance II Course No. 40222 Credit: 0.5

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| **Student name:**  |  | **Graduation Date:** |  |

Pathways and CIP Codes:Mobile Equipment Maintenance (47.9999) - Technology Strand II

Course Description: A comprehensive, **application level** course designed to provide students with the skills needed to inspect, service, and repair engine control systems. (Prerequisite: Engine Performance I.)

Directions:The following competencies are required for full approval of this course. Check the appropriate number to indicate the level of competency reached for learner evaluation.

**RATING SCALE:**

4. Exemplary Achievement: Student possesses outstanding knowledge, skills or professional attitude.

3. Proficient Achievement:Student demonstrates good knowledge, skills or professional attitude. Requires limited supervision.

2. Limited Achievement:Student demonstrates fragmented knowledge, skills or professional attitude. Requires close supervision.

1. Inadequate Achievement:Student lacks knowledge, skills or professional attitude.

0. No Instruction/Training:Student has not received instruction or training in this area.

## Benchmark 1: Click or tap here to enter text.

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Demonstrate and apply safe working practices with tools and machines. |  |
| 1.2 | Identify and follow safety procedures as outlined in OSHA guidelines. |  |
| 1.3 | Retrieve and interpret computer diagnostic codes and data to repair computer related engine problems. |  |
| 1.4 | Identify, remove, and replace faulty computer input sensors and output devices. |  |
| 1.5 | Locate and interpret computer diagnostic monitor data. |  |
| 1.6 | Use a scan tool to record and interpret computer data information. |  |
| 1.7 | Explain the process used to download and install on-board computer updates. |  |
| 1.8 | Diagnose fuel and air induction system problems; determine necessary action. |  |
| 1.9 | Inspect, repair, and/or replace fuel supply components. |  |
| 1.10 | Disassemble, clean, inspect, and replace fuel injection components. |  |
| 1.11 | Diagnose and repair exhaust system concerns, including exhaust color and odor. |  |
| 1.12 | Diagnose emission control systems problems and determine necessary action. |  |
| 1.13 | Clean, inspect, and replace positive crankcase ventilation (PCV) system components. |  |
| 1.14 | Clean, inspect, and replace exhaust gas recirculation (EGR) components. |  |
| 1.15 | Test, inspect, and replace exhaust treatment components. |  |
| 1.16 | Test, inspect, and replace fuel vapor control system components. |  |
| 1.17 | Conduct engine mechanical noise and performance tests using diagnostic test equipment; determine necessary action. (Example: compression, leakage, vacuum, and back pressure). |  |
| 1.18 | Verify camshaft mechanical, hydraulic, and electronic timing. |  |

I certify that the student has received training in the areas indicated.

Instructor Signature:

For more information, contact:

CTE Pathways Help Desk

(785) 296-4908

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