# Small Engines & Powertrains II Course No. 40214 Credit: 0.5

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

Pathways and CIP Codes: Vehicle Maintenance & Repair (47.0600)

Course Description: A comprehensive, **application level** course designed to provide students with advanced knowledge and skills common to all small engine operations and repair.

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.

**Prerequisite**: Small Engines and Powertrains I (40212)

## Benchmark 1: Saefty

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Identify and safely use and maintain the tools needed to perform mechanical repairs, including precision measuring tools. |  |
| 1.2 | Demonstrate and follow safety procedures as outlined in OSHA and EPA guidelines. |  |

Benchmark 2: engine diagnostics

Competencies

| # | DESCRIPTION | RATING |
| --- | --- | --- |
| 2.1 | Perform electrical system service, diagnostics, and testing. |  |
| 2.2 | Perform fuel system service and diagnosis. |  |
| 2.3 | Perform ignition system service and diagnosis. |  |
| 2.4 | Perform starting and charging system service and diagnosis. |  |

Benchmark 3: engine repair

Competencies

| # | DESCRIPTION | RATING |
| --- | --- | --- |
| 3.1 | Remove and install an engine following manufacturers procedures |  |
| 3.2 | Disassemble and reassemble an internal combustion engine correctly, including assembly specifications |  |
| 3.3 | Clean and inspect engine parts to determine their quality and usability. |  |
| 3.4 | Perform troubleshooting techniques for engine performance |  |
| 3.5 | Prepare a repair order and estimate required time and materials to accomplish service procedure. |  |
| 3.6 | Indentify and Perform Preventive maintenance on various engine systems utilizing manufactures recommendations |  |

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

[pathwayshelpdesk@ksde.org](mailto:pathwayshelpdesk@ksde.org)



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