

conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE

- I. Perform a winter tune-up on a residential furnace.
 - A. Perform 14 service checks.
 - B. Perform 3 safety checks.
- II. Perform a summer tune-up on a residential air condition.
 - A. Perform 10 service checks.
 - B. Perform 2 safety checks.

COURSE LEARNING OUTCOMES AND COMPETENCIES

Upon successful completion of this course, the student will:

- A. Describe the value of performing a winter tune-up.
 1. Demonstrate safe operation of the furnace.
 2. Explain how a tune-up saves money.
 3. Demonstrate how to find problems before they break down.
 4. Explain how a tune-up provides more efficient heat.
 5. Explain how a tune-up will prolong the life of the furnace.
 6. Demonstrate how to check the carbon monoxide (CO) levels.
 7. Explain the dangers of carbon monoxide (CO) poisoning.
- B. Demonstrate the steps to be performed in a winter tune-up.
 8. Demonstrate how to check for carbon monoxide.
 9. Demonstrate how to check electrical connections and safety,
 10. Demonstrate how to check for the proper temperature split.
 11. Demonstrate how to check the flue for proper venting.
 12. Demonstrate how to oil the blower motor.
 13. Demonstrate how to check the gas pressure.
 14. Demonstrate how to change the air filters.
- C. Demonstrate the value of performing a summer tune-up.
 15. Demonstrate how cleaning the coil will allow better air flow.
 16. Demonstrate how checking refrigerant charge will allow a system to cool better.
 17. Demonstrate how a tune-up saves money.
 18. Demonstrate how a tune-up prevents break downs.
 19. Demonstrate how a tune-up extends the life of the system.
 20. Explain how a well tune system will dehumidify better.
 21. Explain how a well tune system will create better air quality (IAQ) in the structure.
- D. Demonstrate the steps to be performed in a summer tune-up.

22. Demonstrate how checking the refrigerant charge, by using the super-heat method.
23. Demonstrate how to clean the outside coil with water or coil cleaner if needed.
24. Demonstrate how to oil all fan motors.
25. Demonstrate how to check temperature drop inside the building.
26. Demonstrate how to perform an amp draw on all motors.
27. Demonstrate how to clean an evaporator coil with the proper coil cleaner.
28. Demonstrate the proper customer service skills to perform a summer tune-up

ASSESSMENT OF COURSE LEARNING OUTCOMES AND COMPETENCIES

Student progress is evaluated through both formative and summative assessment methods. Specific details may be found in the instructor's course information document.

COLLEGE POLICIES AND PROCEDURES

Student Handbook

<https://www.kckcc.edu/files/docs/student-resources/student-handbook-and-code-of-conduct.pdf>

College Catalog

<https://www.kckcc.edu/academics/catalog/index.html>

College Policies and Statements

<https://www.kckcc.edu/about/policies-statements/index.html>

Accessibility and Accommodations

<https://www.kckcc.edu/academics/resources/student-accessibility-support-services/index.html>.