

COURSE SYLLABUS

LAST REVIEW	Fall 2022
COURSE TITLE	Special Projects II
COURSE NUMBER	HVAC 0231
DIVISION	Career and Technical Education
DEPARTMENT	HVAC
CIP CODE	47.0201
CREDIT HOURS	3
CONTACT HOURS/WEEK	Class: Lab: 6
PREREQUISITES	HVAC 0100, HVAC 0226, HVAC 0228, HVAC 0225, HVAC 0224, HVAC 0232, HVAC 0106, HVAC 0203, HVAC 0204

COURSE DESCRIPTION

This course gives students hands on experience in working with customers on outside projects under the supervision of an instructor. Students who do not choose or are not qualified for an internship will take this course.

PROGRAM ALIGNMENT

This course is part of a program aligned through the Kansas Board of Regents and Technical Education Authority. For more information, please visit:

https://kansasregents.org/workforce_development/program-alignment

PROGRAM LEARNING OUTCOMES

1. The student will be able to demonstrate the ability to perform HVAC procedures in a safe manner
2. The student will be able to classify the different needs of equipment and summarize a solution.
3. The student will be able to exhibit a high level of professionalism including appropriate dress, attendance, communication skills and other soft skills necessary.

TEXTBOOKS

<http://kckccbookstore.com/>

METHODS OF INSTRUCTION

A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, panels,

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

COURSE OUTLINE

- I. Work for one of the local heating and air condition companies.
 - A. Attend work every day.
 - B. Show up on time every day.
 - C. Report back to school weekly with pay stub.
- II. Performed daily work task.
 - A. Fill out work invoices.
 - B. Wear proper work uniform.
 - C. Follow instructions
 - D. Performed work habits according to companies policies.
- III. Report back to school every two weeks.
 - A. Check back with program when help is needed.
 - B. Show valid pay stubs, for two weeks work.
 - C. Report if change jobs.
 - D. Report back to school, every year for 5 years, for follow up.

COURSE LEARNING OUTCOMES AND COMPETENCIES

Upon successful completion of this course, the student will:

- A. Follow orders and obey company rules.
 1. Perform task according to company policies.
 2. Learn, listen, and perform according to company policy.
 3. Performed work to company satisfaction.
 4. Demonstrate good customer relationships.
 5. Demonstrate good dress attire.
 6. Demonstrate how to behave in a professional manner.
 7. Demonstrate how to respect all persons and property.
- B. Perform all duties asked of them.
 8. Perform a summer tune-up.
 9. Perform a winter tune-up.
 10. Perform a clean and check.
 11. Keep an inventory of service truck.
 12. Report for work on time every day.
 13. Sell products and service to customers.
 14. Demonstrate how to ask for help when unsure of performing a new task.
- C. Perform both a summer and winter tune-up.
 15. Perform a summer tune-up.
 16. Clean outside coil with water or coil cleaner.
 17. Check refrigerant pressures.

18. Check amp draw on compressor.
 19. Oil a blower motor.
 20. Check filters
 21. Check temperature drop inside the building.
 22. Check electrical connections
 23. Check air condition operation
 24. Check and clean condensation drain.
 25. Clean filter
- D. Troubleshoot and repair heating and air condition equipment.
26. Test voltages both 120 and 24 using appropriate volt/ohm meter.
 27. Know the sequence of operation.
 28. Check gas pressure using the proper manometer gage.
 29. Check refrigerant charge using the super-heat method.
 30. Clean outside condensing coils.
 31. Remove and replace system components.
 32. Use EPA approve methods for handling of refrigerants.
- E. Fill out the proper paper work for each job.
33. Get customer name and address.
 34. Record the date and time of arrived and departure.
 35. Identify the type of equipment.
 36. Get model and serial numbers of equipment.
 37. Do work as requested.
 38. Record parts used and cost.
 39. Give discounts if required.
 40. Add in taxes.
 41. Collect payment.
 42. Explain the bill to the customer.

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>.