SYLLABUS

DATE OF LAST REVIEW: 02/2013
CIP CODE: 47.0201
SEMESTER: Departmental Syllabus
COURSE TITLE: Special Projects 1
COURSE NUMBER: HVAC0230
CREDIT HOURS: 2
INSTRUCTOR: Departmental Syllabus
OFFICE LOCATION: Departmental Syllabus
OFFICE HOURS: Departmental Syllabus
TELEPHONE: Departmental Syllabus
EMAIL: KCKCC issued email accounts are the official means for electronically communicating with our students.

PREREQUISITES: HVAC0101, HVAC0226, HVAC0228, HVAC0225, HVAC0224, HVAC0232, HVAC0102, HVAC0106, HVAC0203, HVAC0204, HVAC0103, HVAC0105.

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC bookstore, http://www.kckccbookstore.com/, for the required texts for your particular class.

COURSE DESCRIPTION:
This course gives students hands on experience in working with customers on outside projects under the supervision of an instructor.

METHOD OF INSTRUCTION:
A variety of instructional methods may be used depending on content area. They may include but are not limited to lecture, multimedia, cooperative/collaborative learning, demonstrations, labs, on-the-job, internships, and other 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.

EXPECTED LEARNER OUTCOMES:
A. The student will be able to describe the value of performing a winter tune-up.
B. The student will be able to demonstrate the steps to be performed in a winter tune-up.
C. The student will be able to demonstrate the value of performing a summer tune-up.
D. The student will be able to demonstrate the steps to be performed in a summer tune-up.

COURSE COMPETENCIES:
Upon successful completion of this course:

- The student will be able to describe the value of performing a winter tune-up.
- The student will be able to demonstrate safe operation of the furnace.
- The student will be able to explain how a tune-up saves money.
- The student will be able to demonstrate how to find problems before they break down.
- The student will be able to explain how a tune-up provides more efficient heat.
- The student will be able to explain how a tune-up will prolong the life of the furnace.
- The student will be able to demonstrate how to check the carbon monoxide (CO) levels.
- The student will be able to explain the dangers of carbon monoxide (CO) poisoning.

- The student will be able to demonstrate the steps to be performed in a winter tune-up.
- The student will be able to demonstrate how to check for carbon monoxide.
- The student will be able to demonstrate how to check electrical connections and safety.
- The student will be able to demonstrate how to check for the proper temperature split.
- The student will be able to demonstrate how to check the flue for proper venting.
- The student will be able to demonstrate how to oil the blower motor.
- The student will be able to demonstrate how to check the gas pressure.
- The student will be able to demonstrate how to change the air filters.

- The student will demonstrate the value of performing a summer tune-up.
- The student will be able to demonstrate how cleaning the coil will allow better air flow.
- The student will be able to demonstrate how checking refrigerant charge will allow a system to cool better.
- The student will be able to demonstrate how a tune-up saves money.
- The student will be able to demonstrate how a tune-up prevents break downs.
- The student will be able to demonstrate how a tune-up extends the life of the system.
- The student will be able to explain how a well tune system will dehumidify better.
- The student will be able to explain how a well tune system will create better air quality (IAQ) in the structure.

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

ASSESSMENT OF LEARNER OUTCOMES:
Student progress is evaluated by means that include, but are not limited to, exams, written assignments, and class participation.

SPECIAL NOTES:
This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

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