SYLLABUS

DATE OF LAST REVIEW: 07/22/14
CIP CODE: 47.0106
SEMESTER: Departmental Syllabus
COURSE TITLE: Ventilation Hoods/Make-up Air Blowers
Domestic/Commercial
COURSE NUMBER: MAPR0215
CREDIT HOURS: 3
INSTRUCTOR: Departmental Syllabus
OFFICE LOCATION: Departmental Syllabus
OFFICE HOURS: Departmental Syllabus
TELEPHONE: Departmental Syllabus
EMAIL: Departmental Syllabus

KCKCC-issued email accounts are the official means for electronically communicating with our students.

PREREQUISITES: None

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

COURSE DESCRIPTION:
Upon successful completion of this course, the student will be able to identify and explain operation, trace circuits, diagnose and repair several makes of ventilation hoods, snorkel vents, conditioned and non-conditioned make-up air systems. Student will identify, explain the operation, diagnose and repair various and different types of controls. Customer service, repair order write-up, service and parts manual usage, parts ordering and follow through will be discussed and practiced. Upon successful completion of this course, the student should be able to utilize, on-line, and parts ordering software. This course will teach invoice accounting, parts labeling, retail price calculation, packaging and parts distribution systems.

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

**COURSE OUTLINE:**
I. Domestic Ventilation
   A. Installation
   B. Blower Motors
   C. Control Circuit boards
   D. Snorkel Vents
   E. Down Draft Vents
   F. General Maintenance

II. Commercial Vents
III. Installation
IV. Blower Motors
V. Control Circuit Boards
VI. Make-Up Air Units
   A. Non-Conditioned
   B. Conditioned
VII. General Maintenance
   A. Range Hoods
   B. Snorkel Vents
   C. Commercial Hoods
   D. Make-up Air Units
   E. Parts are critical
   F. Accuracy
   G. Pictorial Diagrams
   H. Names/Numbers can change
   I. On-line Research
   J. Parts Manuals/Microfiche
   K. Inventory Management
   L. Worksheet Parts list
   M. Manuals

X. Competency Evaluations

**EXPECTED LEARNER OUTCOMES:**
A. The student should be able to diagnose electrical failures of load and power passing devices.
B. The student should be able to determine cubic feet per minute of air.
C. The student should be able to disassemble and reassemble various makes and models of ventilation equipment.
D. The student should be able to understand the need for ventilation equipment.
E. The student should be able to install ventilation equipment.
F. The student should be able to remove and replace motors, switches, touch pads, and control circuit boards.

G. The student should be able to interpret appliance parts manuals

H. The student should be able to maintain Access database of shop stock parts.

I. The student should be able to navigate on-line web based parts research/ordering software

J. The student should be able to label parts received and distribute replacement parts to live work.

K. The student should be able to interpret parts distributor invoice, and backorder status.

COURSE COMPETENCIES:

The student should be able to diagnose electrical failures of load and power passing devices

1. The student should be able to diagnose electrical failures of drive motors.
2. The student should be able to diagnose electrical failures of control circuit boards.
3. The student should be able to diagnose electrical failures of power relay boards.
4. The student should be able to diagnose electrical failures of touch pad.
5. The student should be able to diagnose electrical failures of low voltage control circuits.
6. The student should be able to diagnose electrical failures of gas valves.
7. The student should be able to diagnose electrical failures of ignition systems

The student should be able to determine cubic feet per minute of air.

8. The student should be able to calculate duct sizes in accordance with the International Mechanical code.
9. The student should be able to calculate vent hood size requirements in accordance with the International Mechanical code

The student should be able to disassemble and reassemble various makes and models of ventilation equipment

10. The student should be able to disassemble and reassemble down draft hoods
11. The student should be able to disassemble and reassemble commercial vent hoods
12. The student should be able to disassemble and reassemble make-up air units
13. The student should be able to disassemble and reassemble remote blower units

The student should be able to understand the need for ventilation equipment.

14. The student should be able to understand the need for ventilation equipment.

The student should be able to remove and replace motors, switches, touch pads, and control circuit boards.

15. The student should be able to remove and replace drive motors
16. The student should be able to remove and replace control circuit boards
17. The student should be able to remove and replace power relay boards
18. The student should be able to remove and replace touch pad
19. The student should be able to remove and replace low voltage control circuits
20. The student should be able to remove and replace gas valves
21. The student should be able to remove and replace ignition systems

   *The student should be able to interpret appliance parts manuals*

22. The student should be able to identify specific parts and components as provided by a mechanical drawing.

23. The student should be able to accurately determine part numbers by drawing reference number.

   *The student should be able to maintain Access database of shop stock parts.*

24. The student should be able to utilize Microsoft Access program to add to and expend Shop parts inventory.

   *The student should be able to navigate on-line web based parts research/ordering software*

25. The student should be able to acquire part numbers utilizing On-line assets provided via the internet.

   *The student should be able to label parts received and distribute replacement parts to live work.*

26. The student should be able to label parts received and distribute replacement parts to live work

   *The student should be able to interpret parts distributor invoice, and backorder status.*

27. The student should be able to report part status accurately bases on invoice information.

28. The student should be able to identify dealer vs. retail pricing

29. The student should be able to calculate prices based on markup percentages.

**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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be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.

Kansas City Kansas Community College complies with the Americans with Disabilities Act. If you need accommodations due to a documented disability, please contact the Director of the Academic Resource Center, in Rm. 3354 or call at: 288-7670.