Washtenaw Community College Comprehensive Report

CON 147 Commercial Building Maintenance III
Effective Term: Fall 2011

Course Cover

Division: Vocational Technologies
Department: Construction Institute
Discipline: Residential Construction Technology
Course Number: 147
Org Number: 14725
Full Course Title: Commercial Building Maintenance III
Transcript Title: Commercial Building Maint. III
Is Consultation with other department(s) required: No
Publish in the Following:
Reason for Submission: Course Change
Change Information:
Course description
Pre-requisite, co-requisite, or enrollment restrictions
Outcomes/Assessment
Objectives/Evaluation
Rationale: Conditionally approved course, seeking full approval. University of Michigan Program.
Proposed Start Semester: Fall 2011
Course Description:

In this course, students continue their training in Commercial Building Maintenance. Students will troubleshoot and correct basic commercial building heating, cooling and ventilation issues such as returns, filters, thermostats and other commercial heating, cooling and ventilation components.

Course Credit Hours

Variable hours: No
Credits: 3
Lecture Hours: Instructor: 45 **Student:** 45
Lab: Instructor: 0 **Student:** 0
Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 45 **Student:** 45
Repeatable for Credit: NO
Grading Methods: Letter Grades
Audit
Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

Requisites

Enrollment Restrictions
Must be U of M contracted facility department to enroll

General Education
Request Course Transfer
Proposed For:

Student Learning Outcomes

1. Inspect, diagnose and repair multiple heating components such as boilers, blowers, hydrostatic or electrical equipment and their related supplies, returns, filters and thermostats.
   Assessment 1
   Assessment Tool: Exam and lab exercises
   Assessment Date: Fall 2013
   Assessment Cycle: Every Three Years
   Course section(s)/other population: ALL
   Number students to be assessed: ALL
   How the assessment will be scored: Exam and lab exercises will be scored using an answer key and a departmentally-developed rubric.
   Standard of success to be used for this assessment: 85% of the students will score 80% or higher on the exam and lab exercises.
   Who will score and analyze the data: Departmental faculty.

2. Inspect, diagnose and repair multiple cooling units such as blowers, hydrostatic, fans and their related supplies, returns, filters, electrical connections and thermostats.
   Assessment 1
   Assessment Tool: Exam and lab exercises
   Assessment Date: Fall 2013
   Assessment Cycle: Every Three Years
   Course section(s)/other population: ALL
   Number students to be assessed: ALL
   How the assessment will be scored: Exam and lab exercises will be scored using an answer key and a departmentally-developed rubric.
   Standard of success to be used for this assessment: 85% of the students will score 80% or higher on the exam and lab exercises.
   Who will score and analyze the data: Departmental faculty.

3. Inspect, diagnose and repair multiple ventilation units such as air, recycling and reclaiming units, ducts, fans, blowers and their related electrical connections, filters and supplies.
   Assessment 1
   Assessment Tool: Exam and lab exercises
   Assessment Date: Fall 2013
   Assessment Cycle: Every Three Years
   Course section(s)/other population: ALL
   Number students to be assessed: ALL
   How the assessment will be scored: Exam and lab exercises will be scored using an answer key and a departmentally-developed rubric.
   Standard of success to be used for this assessment: 85% of the students will score 80% or higher on the exam and lab exercises.
   Who will score and analyze the data: Departmental faculty.

Course Objectives

1. Identify safe and appropriate inspection processes for roof top and mechanical room heating units.

   Methods of Evaluation
   Exams/Tests

Matched Outcomes

2. Recognize various components of heating units.

   Methods of Evaluation
   Exams/Tests
   Matched Outcomes

3. Determine proper HVAC component repairs.

   Methods of Evaluation
   Exams/Tests
   Other
   Matched Outcomes

4. Perform heating component repair within specified parameters.

   Methods of Evaluation
   Exams/Tests
   Other
   Matched Outcomes

5. Perform manufacturer's recommended testing sequences on heating components.

   Methods of Evaluation
   Matched Outcomes

6. Perform final manufacturer's inspection to ensure proper operation of heating components.

   Methods of Evaluation
   Matched Outcomes

7. Identify safe and appropriate inspection processes for roof top and mechanical room cooling units.

   Methods of Evaluation
   Matched Outcomes

8. Recognize various components of cooling units.

   Methods of Evaluation
   Matched Outcomes

9. Determine proper cooling component repair.

   Methods of Evaluation
   Matched Outcomes

10. Perform cooling component repairs within specified parameters.

Methods of Evaluation
Matched Outcomes

11. Perform manufacturer's recommended testing sequences on cooling compoenents.

    Methods of Evaluation
    Matched Outcomes

12. Perform final manufacturer's inspection to ensure proper operation.

    Methods of Evaluation
    Matched Outcomes

13. Identify safe and appropriate inspection process for ventilation units.

    Methods of Evaluation
    Matched Outcomes

14. Recognize various components of ventilation units.

    Methods of Evaluation
    Matched Outcomes

15. Determine proper ventilation unit repair.

    Methods of Evaluation
    Matched Outcomes

16. Perform ventilation component repair within specified parameters.

    Methods of Evaluation
    Matched Outcomes

17. Perform manufacturer's recommended testing sequences on ventilation components.

    Methods of Evaluation
    Matched Outcomes

18. Perform final manufacturer's inspection of ventilation equipment to ensure proper operation.

    Methods of Evaluation
    Matched Outcomes

New Resources for Course

Course Textbooks/Resources

Textbooks
Manuals
Periodicals

Software

Equipment/Facilities

Off-Campus Sites

Reviewer	Action	Date
Faculty Preparer:	*Faculty Preparer*	*May 30, 2011*
Department Chair/Area Director: *Cristy Lindemann*	*Recommend Approval*	*Jun 12, 2011*
Dean: *Ross Gordon*	*Recommend Approval*	*Jun 24, 2011*
Vice President for Instruction: *Stuart Blacklaw*	*Approve*	*Aug 25, 2011*